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REGIONAL AFFAIRS

Counterfeit Medicines: Trade Growing

93WE0451B Harare SOUTHERN AFRICAN ECONOMIST in English Jun 93 pp 16-17

[Excerpts] The health services of poor countries are particularly vulnerable to the pill pirate.

A regional initiative launched by 20 poor West African countries to confront the growing international trade in counterfeit medicines has been widened into a major United Nations campaign to stamp out the global menace.

Pill piracy involves convincing copies of life-or-death medicines such as insulin, antibiotics and antivirals. In Nigeria, more than 100 Nigerian children under six years died after being given paracetamol, a pain killer, containing an industrial solvent. Nigerian children suffering from malaria have also died after being treated with fake anti-malaria drugs.

The global campaign against this multibillion dollar business is coordinated by the World Health Organisation (WHO) in Geneva. The drive involves the medical profession, the drug companies, wholesalers, pharmacists and the packaging industry, as well as governments and higher education institutions worldwide.

The WHO has recently tightened the net by revising its guidelines for the international quality certification scheme to check against fraud in the sale of pharmaceutical products.

Lacking sufficient training and testing facilities, the health services of the poor countries are particularly vulnerable to pill piracy. But millions of doses of fake cardiac medicine containing only half the purported strength were recently handed out by hospitals and pharmacies in Europe. This pioneering programme against the lethal traffic began in Nigeria in 1991, involving training courses for health workers in identifying fake or substandard medicines, as well as investment in laboratories to carry out regular spot checks.

The World Bank has lent Nigeria US\$68 million—equal to the country's annual health budget—to train health workers and set up the laboratories.

Representatives of 20 national health authorities responded at a regional meeting in the Togolese capital, Lome, by deciding to combine their meagre resources in a collective stand against pill piracy. Their initiative was followed last year by a workshop in Geneva organised by the WHO and the International Federation of Pharmaceutical Manufacturers Associations, drawing specialities in many disciplines in search of global remedies.

The Commonwealth Pharmaceutical Association is backing a project pioneered in West Africa, which involves collaboration between English and French speaking African countries in developing distance education techniques and sharing teaching aids. Another five-year

training programme in quality control is also being developed for pharmacists in the region, supported by higher education institutions in Nigeria and Ghana.

Much of the illicit trade originates from third world countries, which do not recognise the patents owned by the multinational drug companies. According to unofficial and unpublished estimates by government health officials and drug company representatives gathered for an authoritative new analysis, fraudulent products are currently creating substantial problems in such countries as Nigeria and its neighbours, in Southern Africa, Bangladesh, Colombia, India, Indonesia, Brazil and Pakistan.

"All it takes is a person with access to a small laboratory, a total disregard for human beings and a touch of larceny in the heart," writes Milton Silverman, Mia Lydecker and Philip Lee of the Institute of Health Policy Studies, School of Medicine, University of California in San Francisco. "The only safeguard is eternal vigilance and a national distaste for corruption," the authors say in a study on the trade. The counterfeit pharmaceuticals distributed by cut-price middlemen can reach any country.

The authors describe a court case in India investigating the death of 14 hospital patients after being treated with industrial, rather than hospital grade glycerine. The judge "could find no evidence that any of the wholesalers or distributors involved in the deal had warned the hospital that the glycerine was unsuitable for medical use." He found that the hospital purchase committee had "functioned in a slaphappy manner, followed totally unsatisfactory procedures and acquired medicines—including life-saving drugs—indifferently or as guided by corrupt managers or interfering ministers." [passage omitted]

The legitimate pharmaceutical companies supplying a US\$150 billion annual market have been hitherto reluctant to acknowledge the problem for fear of losing consumer faith in their products. But some of them are no longer prepared to settle counterfeit cases out of court to hush up the issue. The Swiss drug company Ciba-Geigy has provided specialist training, scientific equipment and managerial advice in the establishment of a pharmaceutical quality control laboratory, which has opened in Yaounde, the capital of Cameroon.

The revised guidelines of the UN Certification Scheme on the Quality of Pharmaceutical Products in International Commerce should enable importers to check whether drug suppliers meet international requirements for good manufacturing practices in factories regularly scrutinized by inspectors, and whether their products are registered in the exporting country.

The WHO assists governments in many parts of the world to improve their systems of quality assurance through specialist training, the development of simple, computerized registration systems and the establishment of national or regional quality control laboratories. The organisation is also providing support for groups of countries aimed at harmonizing regional drug regulatory requirements to

foster trade in locally manufactured medicines and to impede international commerce in fake and substandard products.

GHANA

Health Services Reduce Infant Mortality

93WE0445A Accra PEOPLE'S DAILY GRAPHIC
in English 28 Apr 93 p 16

[Article by Asiedu Marfo]

[Text] The infant mortality rate in the country has decreased from more than 120 per 1,000 births in 1977 to less than 90 per 1,000 births as of now due to the Primary Health Care Programme (PHC).

Besides, immunisation rates increased from around five percent in 1970 to between 30 and 50 percent in 1988 under the programme.

Dr. George Kwadwo Amofa, Ashanti Regional Director of Health Services announced this at a lecture on the PHC concept at the 10-day seminar for stringers from Ghana News Agency at the City Hotel, Kumasi, on Monday.

He further announced that coverage of treatment for common diseases such as malaria, measles, whooping cough and diarrhoea increased from 65 percent in 1985 to about 76 percent in 1990.

Dr. Amofa said accessibility to health service has improved greatly and that many deprived areas now have access to some form of health care.

He said another major achievement is the interest that has been generated among young doctors in the area of public health, an area which traditionally had been frowned upon in the past.

Some progress has also been made towards inter-sectoral collaboration, especially at the district level where district health management teams (DHMT) have been put in place.

"We now have health workers capable of designing innovative ways of reaching deprived population and strengthening community-based health activities," he explained.

Dr. (Mrs.) Irene DesBordes, principal medical officer in charge of the maternal and child health centre (Children Hospital) in Kumasi said about 28 percent of reported pregnancies at the hospital involve teenagers.

She said family planning acceptance has improved slightly and that male involvement is still very low.

MOZAMBIQUE

Special Food for Malnourished Children Arrives

93WE0423C Maputo NOTICIAS in Portuguese
7 May 93 p 1

[Text] The first shipment of 4 tons of a therapeutic food product specially formulated for treating malnourished children has just arrived in the country.

Known as Premix, this preparation of powdered, fortified milk has the same composition as the therapeutic food recommended by the Health Ministry and known by its acronym LOA (milk, oil, and sugar).

According to the UNOHAC [expansion not given] monthly bulletin, which reports on post-war humanitarian activities in Mozambique, the liquid forms of LOA or Premix are normally used to promote rapid recovery of lost weight in the malnourished child. The advantage of this new food is that the health worker only has to add water to the powder, thus dispensing with the mixing of oil, milk, and sugar, which are currently supplied by the DPCCN [Department for the Prevention and Control of Natural Disasters] and the World Food Organization.

Most of the initial shipment of four tons of the new therapeutic food has been assigned to Maputo and Manica Provinces, and could rapidly be distributed to other regions of the country. This quantity is sufficient to treat 2,000 severely malnourished children for one week.

The aforementioned bulletin indicates that apart from being tested in government health centers, the new therapeutic food will also be tried out in centers under the control of different nongovernmental organizations.

That bulletin adds that the decision to move forward with another product complementing the ingredients of milk, oil, and sugar (LOA) provided by the PMA [expansion not given], resulted from the government's concern about the impact of the serious drought in the years 1991-92. It became clear that LOA was either arriving at the health centers in insufficient quantities, or with incorrect dosages in its ingredients. It also came to light that some families received the powdered milk but lacked the necessary oil and sugar for preparing the LOA.

This new food, according to that publication's report, avoids the problem of missing ingredients, since the three components are premixed and the resulting powder requires only potable water to make the same composition as that recommended for LOA.

It added that preliminary results from the use of a small quantity of Premix in Maputo Central Hospital are very encouraging and indicate that it will be an important addition to the emergency and drought assistance efforts.

According to that bulletin, the opening up of Renamo [Mozambican National Resistance] zones shows Premix as being ideal for satisfying short-term emergency needs for therapeutic food in those areas, and negotiations are currently underway for the use of this food.

After evaluation of the first shipment, additional quantities will be pre-positioned and made available to the different NGO's [nongovernmental organizations] and other entities involved in therapeutic food.

Health Infrastructure in Matutuine Destroyed

93WE0423B Maputo NOTICIAS in Portuguese
7 May 93 p 3

[Text] The health infrastructure in Matutuine District has been practically destroyed by the war. At this time, only two health posts and one health center are operating, to serve a population estimated at more than 55,000 inhabitants. This situation is of particular concern to sector officials in that area of Maputo Province. They in turn are still debating the problem of scarce resources for evacuating seriously ill patients who are transferred and provided with transportation and other necessary materials for carrying out health work.

Before the outbreak of the war, which seriously affected that area beginning in 1987, destroying not only health infrastructure but also other sectors of economic and social life, Matutuine District had seven health posts and one health center, the latter operating in the town of Bela Vista.

Apart from those units, according to District Health Director Luis Sabino, other small ones were operating in various population centers of the administrative posts of Bela Vista, Catuane, Zitundo, Machangulo, and Catembe, serving a population estimated at the time at 66,000 inhabitants.

"During the war all the health units were destroyed and looted, and now there are only two health posts and one health center operating in the entire district," said our interlocutor. During the same interview, he said that as of now, only an appraisal of the situation has been carried out for health post facilities at Ponta do Ouro, which were also destroyed by the war, with a view to renovating them.

With respect to the remaining units, Luis Sabino said that the district government has formulated a post-war plan, which also anticipates recuperating all the closed health posts. He added that besides the aforementioned plan, the Spanish nongovernmental organization Doctors Without Borders will also rehabilitate some health units, among them the Bela Vista health center, which will also be upgraded in several areas.

With these actions, he said, it is hoped that the health infrastructure situation in the district, and its services to the population will improve, as people begin to reestablish themselves in the area after having taken refuge in neighboring South Africa and Swaziland because of the war.

On this subject, the district health director said that most of those people suffer from various illnesses, among them malaria and intestinal parasites. He added that as a consequence of these diseases, there are many cases of disease and malnutrition, particularly among children.

"Another disease that concerns us at the district level is pulmonary tuberculosis," our source said, adding that because of the difficulties the health center has been facing, patients with that disease were sent to Maputo Central Hospital or the one in Mavalane for analysis, particularly during wartime.

According to Luis Sabino, currently analyses of this disease are performed at the local level, as are those of other diseases, such as malaria. Our interlocutor pointed out that a primary cause of this latter disease, as well as intestinal parasites, is the mosquitoes that greatly abound in that area of Maputo Province, particularly in the district headquarters, and the population's consumption of water from the river and puddles that form during the rains.

Asked to discuss the number of deaths that had been caused by malaria, our interlocutor said that since the beginning of the year that disease had caused three deaths. However, he admitted the possibility that the number could be higher since not everyone has access to health services because, on the one hand, of the reduced capacity of the infrastructure throughout the district, and on the other, the lack of transportation for the few units operating.

"We have no known cases of death from intestinal parasites. However this disease, particularly in undernourished children, could cause death," our interlocutor emphasized.

Concern over the lack of health facilities was expressed by people approached by our reporters in various areas of the district, particularly at Ponta do Ouro, where a large influx of people fleeing the war have returned, after having sought refuge in neighboring countries, particularly South Africa and Swaziland.

Need To Import More Medicines, Equipment

93WE0423A Maputo NOTICIAS in Portuguese
8 May 93 p 8

[Text] The funds available to import various medicines into the country are in short supply, and have not been forthcoming in a constant stream over the course of the year, thus creating a shortage of supplies, NOTICIAS learned yesterday from Health Ministry Pharmaceutical Chief Dr. Elisabete G. Albino.

According to our source, despite these conditions, the Health Ministry (MISAU) has sought to provide the health units with the different quantities of medicine they require.

"We have used import support funds donated by the international community, and monetary donations, the latter in particular for primary treatment in the framework of the Essential Medicines Program (PME)," she explained, recognizing, however, that "the available funds do not cover our existing needs in this area."

For example, in 1992, of the \$16 million budgeted, only \$8.2 million of medicines were actually imported, most of which have not yet arrived in the country.

Dr. Elisabete also pointed out that if one counts diagnostic resources (X-ray plates and laboratory chemicals), dressings and medical-surgical materials, and hospital equipment, our country required \$23 million last year, a situation that does not correspond to actual reality, since only a total of \$16.2 million was approved.

"As I said earlier," she explained, "even that budgeted money has not yet arrived in its entirety."

...\$6 Million of the \$16 Million Guaranteed for 1993

NOTICIAS also learned that for this year the needs for medicines, diagnostic tools, X-ray plates, chemicals, medical-surgical and dressings, and other equipment are budgeted at \$26 million, \$16 million for medicines alone.

However, our source emphasized that of the budgeted total, so far a total of only \$6.4 million has been identified, with the Foreign Economic Affairs Committee of the Council of Ministers working to locate the remaining funds to be allocated to cover what is lacking.

Asked for a statement on current national pharmaceutical policy, our source said that she "has maintained the same opinion since 1978, which is considered by the World Health Organization (WHO) to be one of the most correct among the various countries of the world."

With respect to the existence of large quantities of medicines in the parallel markets, Dr. Elisabete stated that this situation is due, among other factors, to diversions at the ports, particularly on the arrival pier, as well as stealing from the health units by the employees, and the legalized importing of drugs.

Another question asked by our reporter dealt with the difficulties encountered with the supply of medicines to the districts, which consequently forces those health posts to work with shortages of medicine. Responding to this question, our source said, "That truly is the case, and it is worrisome to a certain extent. However, as I said earlier, we have done as much as possible to provide the health facilities with a minimum supply of medicines, but we encounter problems of distribution for reasons involving not only the shortage of stocks, but also a lack of available funds."

Nampula Health Sector Receives Hospital Equipment

93WE0436B Maputo NOTICIAS in Portuguese
20 May 93 p 3

[Text] The Nampula Provincial Health Directorate has just received from its respective ministry (MISAU) [Health Ministry] more than 600 hospital beds and a significant quantity of bedclothes, the reporter from our delegation in that city learned some days ago.

These quantities, according to Provincial Health Director Pinto Antonio, are still insufficient to cover the needs of the entire province, because of the shortages in almost all the health units and attending to the imperious need to minimally equip the rehabilitated units in some districts, in an action forming part of the post-war reconstruction program at the sectoral level.

With respect to the system for distributing the aforementioned materials, our source informed us that there is already a plan to that effect, prioritizing the Nampula Central Hospital, the hospital in Nacala, and the rural

hospitals at Angoche and Namapa, and other health centers in the province headed by medical interns.

Asked for a statement on the possibility of receiving another lot of equipment, since the present one is considered insufficient, our interlocutor said there was no expectation of that in the short term.

During the course of the interview, we also learned that another issue concerning officials involved in the sector in this part of the country is the severe lack of beds in the health facilities.

With a view to resolving the situation, according to the provincial health director, efforts are under way at the local level, together with the industrial units, to order the bed fabrics.

To this end, a contract has already been signed with the Carapira School of Arts and Trades, in Monapo District, to construct slightly more than 300 hospital beds, out of the more than 1,000 needed.

Study Reveals Infant Mortality Rising

93WE0458A Maputo NOTICIAS in Portuguese
1 Jun 93 p 8

[Text] An average of 550 children under five could die every day between now and the end of the century if there are not radical changes in Mozambique's social and economic policy, official studies indicate.

With today's population growth rate (2.6 percent annually), a total close to 1.4 million children could die by the year 2000, according to the Mozambican Government and the UN International Children's Emergency Fund (UNICEF).

The deaths, "primarily from avoidable and treatable causes," will occur if radical changes are not made in the coverage of services and the provision of resources to reduce poverty and improve the standard of living for the majority of the population.

The study, entitled "Strategy for the Plan—Director of Operations (PDO) 1994-1998," contains exhaustive information on health, water and sanitation, education, information, and the media.

The document, to which the AIM [Mozambican Press Agency] had access, also makes reference to children in difficult situations, food security for the family unit, and social emergencies and planning.

The priority problems, which constitute the "most painful events and traumas" of more than a decade of armed violence, are very high rates of infant mortality, preschool mortality, and maternal mortality.

Currently, infant mortality in Mozambique, a country in southern Africa with some of the lowest economic indices in the world, is 140 to 150 per 1,000 infants born, while preschool mortality is 273 per 100,000 live births, and maternal mortality is 300 per 100,000 births.

It was also emphasized that maternal mortality is the official rate based on hospital data, but given new figures on conditions outside the hospitals, the rate could possibly be as high as 1,100.

Mozambique is emerging from a 16-year "hunger war" that, according to the United Nations, has killed and mutilated more than a million people and left millions of others in great misery and without the means of existence.

Children are the hardest hit by this catastrophe. By the end of the war, in October 1992, it was calculated that approximately 600,000 children had already died as a direct or indirect result of the "hunger war."

Many thousands of others find themselves malnourished, physically mutilated, and carrying in their minds scars that will last their entire lives.

With close to 16 million inhabitants, Mozambique also has close to 4 million internal refugees and another 1.5 million in neighboring countries.

The Mozambican Government and UNICEF are concerned because despite the silencing of the guns, "basic problems continue for thousands of families and their children."

These problems could be summarized as a mixture of widespread poverty, lack of food security, and basic services that expose children to high risk of contracting infectious diseases.

There are five main causes of death, all of them possible to prevent and treat with inexpensive or well-known methods that would result in improved living conditions.

These are malaria, measles, diarrheic diseases, acute respiratory infections, and tetanus, reports the joint Mozambican Government-UNICEF study.

Chronic malnutrition affects 50 to 60 percent of the children and outbreaks of that disease, linked to access to and availability of food supply, as well as environmental conditions, increase the risk of mortality for children who contract any of the other diseases.

These numbers in themselves justify a new "National Action Plan for Children (PNAC)," which could call upon all the various domestic and international groups to attack and correct the situation.

The government already has a series of commitments to the Mozambican people and the international community, involving the problem of children.

In recent years, various conferences and international summits have been held that have defined, in global terms, overall direction in areas of education and even in the integral development of children.

Based on these international meetings and the signed commitments, the Government has resolved to include the new PNAC in the broadest social goals of the National Reconstruction Plan (PRN).

Vaccination Program, Health Situation

93WE0476A Maputo TEMPO in Portuguese
20 Jun 93 pp 13-17

[Article by Brigida Mahache]

[Text] UNICEF has recently financed vaccines, refrigeration systems, and fuel for the Long-Term Vaccination Program [PAV]. This program began in Homoioe District in Inhambane Province last 1 June and coincided with the International Childrens' Year celebrations.

The program kicked off with the education vice minister giving the first drops of antitetanus vaccination to a baby and then recording the event in the child's vaccination record, in Homoioe.

The long-term vaccination campaign has been kicked off in Inhambane Province. Several residents of Homoioe, among them school-age children, infants accompanied by their mothers, and women of child-bearing age, received their first vaccines. There will be continuous and accelerated campaigns, with the objective of preventing disease.

The health center workers, who on the first day of the campaign wore smocks from the Health Ministry with the slogan "Vaccination is Prevention," now have the arduous task of educating the population to regularly obtain their vaccinations.

At the same time as the Homoioe program, the village of Chinguique, 7.5 km from Homoioe, also began vaccinating. The district director opened the campaign. Attendance was sparse, due to the [Homoioe] mobilization a few days earlier, said Director Silva Chironda, who added that local governments must kick off information campaigns, for the people to understand and adhere to the vaccination program.

He added that in this program, children from birth to 23 months will be vaccinated against BCG (tuberculosis), DPT [diphtheria, tetanus, and pertussis], or receive the triple vaccine against DPT, as well as the antipolio or infantile paralysis vaccine, and the measles vaccine.

Women of child-bearing age, from 15 to 49, or when pregnant, will be vaccinated with tetanus to prevent neonatal tetanus, he added.

War veteran Gandi Chibanga, when asked about the question of family planning, said he was not familiar with the issue. He is the father of nine children, of which only four are alive, and since he fears what could happen to the rest, he does not intend to stop having children. Regarding vaccinations, Chibanga said he knows what he has to do, especially for his children and his wife, who is pregnant.

In Inhambane, the PAV has also commissioned Luis Thonela, chief nurse at the district hospital, who said that the vaccination brigade has also been operating in the Chacana area since 1 June, scheduled to finish 16 June, and they are working 12 hours a day.

Meanwhile, National PAV Head Pecos Matosse said that the objective of the vaccination program is to reduce infant mortality and morbidity by preventable diseases. He added that the WHO has established some goals for eliminating neonatal tetanus by the year 1995, as well as reducing the number of measles cases by more than 90 percent during the course of the program. One of this organization's overall goals is to reduce the number of measles deaths by more than 95 percent. Another is to eradicate poliomyelitis (infantil paralysis) by the year 2000.

With reference of Inhambane, PAV Chief Pecos Matosse said that the accelerated vaccination program that has now begun aims to cover the greatest possible number of people in the rural areas, with the objective of returning to the high rates of coverage in the province before the war.

"The population does not yet participate in the vaccination program to the extent that it should," he said. For that, it is necessary to carry out some basic work among community leaders, church officials, traditional healers, local governments, and ODM's [mass democratic organizations], among others, to obtain support in articulating, educating, and mobilizing the population with a view to fulfilling the program.

Within each area, health personnel should carry out door-to-door visits to cover children with incomplete or no vaccines. Pregnant women also deserve special attention, and it is necessary to observe those who do not receive prenatal consultations and vaccines. Within the target group, there may also be untreated tuberculosis sufferers, to whom it is necessary to recommend hospital treatment after explaining the serious risks of not seeking this treatment.

"It is the role of health personnel to observe the health aspects of the surrounding environment: cleanliness, construction of latrines, etc, to prevent the spread of disease," he said.

Post-War Inhambane Health Plan

In order to respond fully to the needs of the population now that the war has ended, Inhambane Province has already formulated its plan and submitted it for analysis. This plan gives priority to rehabilitating infrastructure, allocating resources, and above all, providing primary health care, among other things, according to Provincial Health Director Adalberto Dengo. He said that currently, the level of care in some districts is being raised, and sanitary posts are being built, with the support of some organizations.

Active in these areas will be the Basic Multipurpose Agents, selected by the people themselves, and who will attend six-month courses.

Also involving the preparation of personnel for the health sector, several workers will be trained in primary health care, principally in the PAV, maternal-infant care, and other preventive activities, with a view to helping mobilize the population.

But the Inhambane Provincial Health Administration is facing difficulties in the area of human resources and materials, transportation, refrigerated facilities, and fuel. Despite that, a great effort has been made to fill the gaps.

Adalberto Dengo says that the objective is to attempt to fulfill the anticipated goals in the various PAV programs, maternal-infant health, preventive treatment of children, etc.

With respect to the PAV, Adalberto Dengo said that the goals were essentially fulfilled in the cities of Inhambane and Maxixe. The BCG's established goal was 95 percent completed, and 60 percent of the target group was covered.

With respect to measles, the provincial health director said that the goal was set at 81 percent, and 53 percent for the target group. For the triple vaccine, the first doses were applied to 82 percent of the population, corresponding to 65 percent of the target group.

In the city of Inhambane, the population collaborated with the mobile vaccination brigades beyond merely attending the facilities set up for that purpose. Even given the population's compliance with the vaccination program, the provincial health official states that the mobilization and education campaign must not stop.

With respect to the basic medicine program, Adalberto Dengo said that population increase has resulted in a shortage of supplies of kits to be distributed. The kits provided by the primary-level health units contain medicines for common diseases, such as malaria, diarrhea, intestinal parasites, and sexually transmitted diseases.

Regarding the lack of medicine, Gandi Chibanga, from the village of Chinguingue, said that health in his area is a little better, but they sometimes lack medicines. "When that happens, some residents resort to traditional medicines, which do not always resolve the problems," he stated.

But on this subject, the provincial health official states that he does not have any knowledge or data.

Another topic of capital importance was AIDS in Inhambane, of which Adalberto Dengo said there was low incidence in terms of notification, although at least 10 cases have been recorded. However, there is a provincial program to address this.

Nutritional Rehabilitation

With two houses and a tent to shelter patients in serious condition, the Chidenguele Nutritional Rehabilitation Center has with some difficulty sought solutions for the remaining problems of its patients. Currently, it has only two permanent aid workers.

According to statements by Arlindo Salomao Novele, one of the workers, patients go to the center to be rehabilitated after receiving treatment at the various health posts. The patients come from several areas, including Marender, Baula, Guiuze, Betula Balamo, Dengune, and others.

Since October 1992 the center has recorded some 20 deaths, among them old people and children.

Arlindo Novele said that the center has received a total of 562 people for rehabilitation. At the center, seriously ill patients remain interned so as to be closely attended, as do those arriving from distant areas.

Currently, the center has 25 patients undergoing rehabilitation, all of them living at the center. Only one patient is treated on a walk-in basis.

Arlindo Novele said that the center has some 14 volunteer workers, out of an initial total of 25. One of the problems among the aid specialists is lack of support, which causes certain gaps.

With reference to sanitation, Arlindo Novele noted that they have already succeeded in constructing four latrines at the nutritional center. One of the workers' main tasks is to teach those rehabilitated how to build and properly use the latrines.

Water consumed in the town of Chidenguele is from the only well in operation. There are another three wells considered capable of being rehabilitated, to supply water to the population of Chidenguele.

However, Arlindo Novele said that the town has regularly received food for the patients, consisting of beans and peas, as well as oil, sugar, and milk, which are the basic ingredients for treating patients suffering from malnutrition.

SOUTH AFRICA

National Accelerator Center: Affordability
93WE0422B Johannesburg ENGINEERING NEWS
in English 16 Apr 93 pp 10-11

[Robyn Leary discussion with FRD President Dr. Rein Arndt; First paragraph ENGINEERING NEWS comment]

[Text] South Africa's National Accelerator Centre (NAC), which is managed by the Foundation for Research Development (FRD) has been charged with carrying out research "clearly geared to the perceived First World needs of South Africans." The question now being asked is whether South Africa can afford the upkeep of such a facility, which already absorbs 30 percent of the R117-million budget received by the FRD in its agency role. THE ENGINEERING NEWS assistant editor Robyn Leary spoke to FRD president Dr. Rein Arndt about these and other issues.

Excellent research will always be supported by any government in South Africa as long as it is affordable, says Foundation for Research Development (FRD) president Dr. Rein Arndt of the National Accelerator Centre (NAC).

It is the issue of the NAC's affordability which has encouraged the FRD to put together a task group to seek support from "other national and international resources."

The western Cape-based NAC, which has been managed by the FRD since April 1991, has been charged in a draft report by a mission sponsored by Canada's International Development Research Centre with carrying out research "clearly geared to the perceived First World needs of South Africans."

However, Dr. Arndt stresses that First World research is necessary to solve the complex problems of the Third World.

He sees the NAC as fulfilling a vital role in Africa as it is the only facility of its kind within a radius of 80,000km to provide research into cancer treatment.

Efforts are underway to make the NAC an "African" centre and discussions with various unnamed countries have resulted in "tremendous interest" in the facility's services.

"If we take the facility away, an ever larger vacuum of this kind of expertise development will appear," he says.

As to the affordability of the NAC—which in terms of the 1993/94 Budget will receive almost R33.98-million from the science vote—Dr Arndt says he realises that the level of support given to the centre is probably more than the science budget can afford.

He feels however that the total science budget should be increased.

The two other national facilities managed by the FRD—the SA Astronomical Observatory and the Hartebeespoort Radio Astronomy Observatory—receive R7.2-million and R3.69-million respectively.

A further R72.55-million goes towards the FRD's agency role of developing human resources in science, engineering and technology.

As a rationalisation move, the NAC will in future concentrate on the fields that will keep a national effort at the forefront of international research, i.e., the exploitation of the centre's medical research potential.

The NAC already produces medical radioisotopes for about 20 laboratories throughout South Africa, is a radiotherapy facility and has the potential to provide positron emission tomography (PET) for diagnosis and physiological studies.

Dr. Arndt considers the NAC to be a "unique international resource" because of the availability of both proton and neutron beams with "ideal energy characteristics" for radiotherapy; an on-site hospital with operating theatres; two medical faculties and teaching hospitals in the immediate vicinity; on-site facilities for radiobiological work; and the availability of a strong scientific, engineering and technical infrastructure at the NAC.

"To close the NAC down would be a most irresponsible decision in the scientific community before it makes every effort to keep it operational as a part of an international network," he says.

"The people who will play a major part in the new government have high respect for good research and realise South Africa will isolate itself in the international science and technology field by not maintaining an affordable level of outstanding research," he concludes.

National Accelerator Center: Cancer Research
93WE0422C Johannesburg ENGINEERING NEWS
in English 16 Apr 93 pp 10-11

[Article by Robyn Leary]

[Text] The National Accelerator Centre (NAC), based in Faure in the western Cape, has "all the character of making South Africa a world leader in the area of radiobiology and radiotherapy for cancer," claims FRD president Dr. Rein Arndt.

NAC director Dr. Daan Reitmann tells THE ENGINEERING NEWS that results obtained in the centre's cancer therapy programme enjoy "wide international interest and recognition" while its locally designed and built cyclotron, according to reports from European laboratories, "runs like a Swiss clock."

The national facility, which was established in 1977, is used by between 100 and 200 researchers countrywide and at any time between 50 and 60 of these would be postgraduate students, says the FRD.

The facility itself has a staff complement of 230 who keep the entire facility operating 24 hours a day, seven days a week, says Dr Arndt.

It comprises a six million electronvolt (MeV) Van de Graaff accelerator (now 36 years old); a 200MeV separated-sector cyclotron, which was put into operation in 1986; an 8MeV injector cyclotron which delivers light ions to the large cyclotron and a second injector cyclotron, still under construction, for heavy ions and polarised light ions.

Additional facilities include equipment for basic and applied research in the physical and medical sciences, for the production of radioisotopes and radiopharmaceutical products and for the treatment of cancer patients with high-energy neutrons and protons.

The Van de Graaff accelerator, which was transferred to the NAC from the now defunct Southern Universities Nuclear Institute (Suni), is used primarily in solid-state physics and materials science research.

The separated-sector cyclotron, with its injector cyclotrons, can deliver variable energy protons up to 200MeV and a variety of heavy ions over a broad energy range.

Research conducted by the users of cyclotron beams concentrates on nuclear and atomic physics, biophysics and radiobiology.

The cancer therapy programme on the cyclotron involves medical research into the treatment of cancer with high-energy neutrons or protons.

In fact the ability of the NAC's cyclotron to produce both high-energy protons and neutrons for cancer therapy is regarded as a world first.

The cyclotron's neutron therapy facility has been in routine operation since 1989 and has treated an average of more than 100 patients a year.

It has reportedly achieved good results in the treatment of both salivary gland and advanced breast tumours.

Its use for the treatment of other tumour sites is still being investigated.

Proton therapy, used near sensitive organs such as the spinal cord and kidneys or inside the brain, has been identified by the European Economic Community (EEC) as a "growth point in cancer treatment" as opposed to other conventional methods of treatment, reports Dr. Arndt.

In line with the EEC recommendation, the NAC plans to establish its own proton therapy programme by 1994 as the cyclotron's beam properties are "eminently suitable for the most sophisticated proton therapy."

More than a dozen new dedicated proton therapy machines are being planned or constructed worldwide at a price far less than the costs of R200-million estimated by the NAC, reports the FRD.

However all that is required by the NAC are the components, for delivering, shaping and measuring the proton therapy beams, at a "minute fraction of the cost of a completely new facility," reports the FRD.

The NAC is also the only centre in South Africa which can produce certain medical radioisotopes and their compounds.

These products are supplied to more than 20 hospitals and institutions, for use in between 5,000 and 10,000 patients each year.

"Some of these are too short-lived to be imported and would thus simply not be available to nuclear medicine if the NAC should stop production," reports Dr Arndt.

Medical Services: Expansion, Role

93WE0455A Pretoria PARATUS in Afrikaans
May 93 pp 13-18

[Interview with Lieutenant General D. P. Knobel, surgeon general, South African Defense Force, by Major du P. Martins; place and date not given: "SAMS Provides One-Stop Care"; first two paragraphs are PARATUS introduction]

[Text] Lt. Gen. D. P. Knobel, surgeon general of the South African Defense Force (SADF), holds out the prospect of savings to the government on the order of 47 million rands

in the first year and an additional 150 million rands in subsequent years in the provision of medical care to policemen and correctional personnel.

In an exclusive interview, Lt. Gen. Knobel announced a plan whereby limited medical services will be provided to members of the South African Police (SAP) and the Department of Correctional Services (DCS) by the SAMS (South African Medical Service). This consists of the provision of in-patient care and dispensary services in accordance with funding, capacity, and need. A proposal in this regard was submitted to the Cabinet late last year and was approved. The new guidelines for providing medical services to members of the three component forces have already been put into effect. The result is that millions of rands can be saved in the government-subsidized health-care programs of police departments and the correctional services in the long term. The interview with Lt. Gen. Knobel follows:

Martins: General, with service to the SAP and DCS under your medical supervision, do you foresee that, with the extra workload, this will create additional expenses that will lead to higher contributions than are now being made by SADF members to the insurance plan?

Knobel: First, I want to point out that there is confusion on the part of many members as to what the insurance plan is. The insurance plan is not an SADF or government fund, but indeed a private fund. The chief of staff, personnel, is the chairman of the fund and a number of members serve on the fund's management board. In addition, a number of officials make up the secretariat of the fund. The fund is operated by receipts generated by contributions that are made only by members of the Permanent Force. These monthly contributions are calculated on an actuarial basis in order to have sufficient funding to provide medical care to the member upon his retirement at the age of 60 and thereafter until he dies—for him and his dependents.

A number of factors affect the contributions that the members make. First, there is the increase in the price of medicines; second, there is the enormous increase in the cost of medical care in the private sector; and third, the number of members retiring with pensions is increasing greatly. Many of these exservicemen live in places where they do not have access to an SADF health-care facility. Consequently, they go to a private facility and the fund must pay these bills at great expense.

So much in regard to the SADF Medical Insurance Plan. With the inclusion of the SAP and DCS in the SAMS' area of responsibility, it must be clearly understood that members of the SAP and DCS do not have membership in the insurance plan. They are going to pay for the service they are going to purchase from the SAMS.

The inclusion in stages of SAP and DCS members who wish to make use of SAMS' health services will occur gradually and we will not allow the number of such additional patients to become so large that SADF patients, who are our first and most important priority, are treated shabbily. The phasing in of such additional patients will

also occur in such a manner that the personnel that I have will be able to readily handle the additional workload. SAP and DCS patients will pay for the care they receive and the monies received in this way will go to pay for any additional medical personnel needed.

At present, my medical infrastructure is completely under-utilized. Bed occupancy at the three hospitals (1, 2, and 3 Military Hospitals) is only about 40 percent. It is expected that, with the inclusion of SAP and DCS members as patients, a standard fee will be paid. The rate will be the same as that that the SAMS has to pay when a Defense Force patient has to be referred to a provincial hospital for a stay there. Thus, they will pay per patient per day.

The fee charged to an SAP/DCS patient will be reimbursed from the Police or Correctional Services medical funds. Unlike the past, the monies can be kept on the books and no longer have to be transferred to the public treasury. With the monies thus received, I will now be able to fund increases in personnel and to pay for equipment and expansion wherever and whenever necessary. By so doing, the bed capacity now filled with SAP/DCS patients can be manned and operated with the needed medical staff. This will therefore have nothing to do with the insurance plan.

Martins: General, can you illustrate the increase in your activities with numbers?

Knobel: In terms of numbers, the SADF currently has a potential 180,000 people that I must take care of. With 180,000 potential patients and with my current manpower, I am filling the hospitals to less than 40-percent capacity. If you take the police force as a whole, we are talking about approximately 300,000 people. If you only take into consideration SAP and DCS strengths in just the areas of Pretoria, Bloemfontein, and Cape Town, however, we are talking about roughly a doubling of my number of potential patients.

It is impossible, of course, to give an accurate figure. We have broken it down into the potential numbers that could possibly come from the other two services. Planning is not so rigid that circumstances will be such that we will have to accept people against our will. Depending upon the bed occupancy rate, the SAMS will decide whether additional patients can be accepted or not.

Martins: The implementation of your plans to enable you to handle the SAP and DCS as well—over what period of years will it be phased in?

We have already begun. The decision has been made, however, to take a look and see what the reaction is from the SAP and the DCS towards the end of 1993 as well as to see whether we have increased bed occupancy from 40 to 60 percent. The questions that will then be asked are whether the SAP and the DCS are satisfied with the services they are receiving, what revenues are we generating by this, and what savings for the government has this resulted in.

At the end of 1993, we are going to reevaluate the answers to these questions. If we succeed in increasing bed occupancy from 40 to 60 percent with a small increase in my personnel budget, it is anticipated that the government will save 58 million rands. We will then see whether we can increase bed occupancy to 80 percent. At that stage, certain expenses will come into play: Personnel expenditures will be greater, but there will also be much greater savings to the government. The evaluation will tell us whether we are going about it at the proper tempo and whether we will be able to complete it within two years. I personally think that it will be closer to three or four years.

There are factors involved that can prevent the bed occupancy rate from being raised as rapidly as planned—factors such as, for example, the fact that the policeman on duty today and his wife have, for years now, been used to a private medical service where they have a familiar specialist, a general practitioner, and a facility that provides for their medical care. It is going to be difficult for them to give that up and to switch to new physicians and a new medical infrastructure. The doctor-patient relationship is a close one and a pregnant woman who has been seen by a gynecologist will want to go back to the person she knows.

The momentum for these plans is going to be initiated with the policeman or correctional officer who is now entering into the service or is in training and who is in circumstances of not having a regular physician or facility. I am thinking here in particular of the young SAP and DCS cadets. These are young men who come from all over the country and who receive training at the two organizations' colleges. They are young, healthy people who normally do not need a physician and, being away from home, do not even know one. In the case of such a man being injured on the rugby field or in the performance of his duties, he does not really have a choice or a preference as to who is to treat him or to which hospital he is to be taken. In his case, his treatment can be taken care of at one of the military hospitals.

In the study we undertook, we discovered that there are far more policemen and correctional officers in Pretoria, Bloemfontein, and the Cape than we could handle if all of them were to switch over to a new service at the same time. Thus, it actually suits our plans that not all of them convert over and we would far prefer to get the new recruits of the two services. With the next incoming group there will be new recruits who will make use of our services and in this way we will gradually increase our bed occupancy rate.

Martins: General, you said that the additional number of patients means enormous savings. How will this be made possible?

The SAP and DCS medical programs work entirely different than our service does. At present, their medical programs pay the costs wherever the patient wishes to obtain care. The patient has the choice of going wherever he wishes, visiting whichever physician he wants to, being admitted to whatever hospital he needs to, and handing in

his prescription to whichever pharmacy he wishes. It therefore costs his medical insurance plan a lot to pay all those expenses.

What we are now offering him is an additional choice. If such a patient now goes to 1 Military Hospital, he will get comprehensive one-stop care—a facility where he can make use of the services of a physician, nurse, radiologist, occupational therapist, and the dispensary—all on a single account. Such service results in great savings for his medical insurance plan. Indeed, his medical insurance plan will pay nearly two-thirds less for such care than it would have cost his plan had the patient's treatment been handled privately.

The goal is thus, first of all, to save the government money and to save money for that medical insurance plan. It should be remembered that the medical insurance plans of the SAP and the DCS are subsidized by the government. The SAP and DCS have to budget for such private treatment. The amount they have to budget just for the hospitalization of their members is almost as large as half of my total budget.

By thus increasing the bed occupancy rate of the military hospitals from 40 to 60 percent by including SAP and DCS patients, the number of hospital days and beds this will entail—as well as the personnel needed to attend to these beds—can be calculated. Accordingly, we have calculated that the government can save approximately 58 million rands this way. This is an estimated forecast figure for the first year. If we go further in the second year and we boost the bed occupancy rate up from 60 to 80 percent and I still hold 20 percent of the "profits" in reserve, then we will save the government about 150 million rands in addition—with a service to the SAP and DCS that does not infringe on the care that we provide to our own members.

Martins: General, such a broad plan implies that sufficient numbers of practitioners and specialists from all disciplines of the medical profession must be available to you in order to care for the patients in three hospitals. How are you going to do this?

Knobel: In the first place, we are not going to fill the beds until we have sufficient medical personnel from all levels and professional specialties. My patient capacity is determined by the number of personnel available. Second, we have considerably enhanced the attractiveness of our service to personnel by the Cabinet's decision to now permit civil service medical personnel to practice privately as well. They can devote a set amount of their time per week to their private practices.

We are negotiating to obtain approval for my physicians, laboratory personnel, radiographers, dispensary personnel, occupational therapists, and related professional people to have the right to conduct a private practice within the government infrastructure. This will make a medical or related profession in the SAMS much more attractive. This will also make it possible for us to be able to recruit more

staff. We are already involved in a recruiting campaign and have already gotten an enormously positive reaction from physicians, nurses, etc.

Martins: Does this mean that the infrastructures of all three hospitals are now at the disposal of the various medical disciplines and that any doctor is free to treat a private patient in any of the hospitals?

Knobel: Free in the sense that this will not apply to any patient [sic]. The hospitals are, first of all, military hospitals with responsibilities in regard to security. We did not say that we are throwing open the hospitals' facilities for use by the general public. We are opening up the hospitals' facilities so that a physician in the service of the SAMS can use them in the treatment of a private patient who is in the military community. These are patients such as civilians employed by the SADF and ARMSCOR [Armaments Corporation of South Africa].

If a policeman were to insist that he should continue to be treated as a private patient by Dr. X in I Military Hospital, then theoretically he can be admitted as a private patient. In such a case he would pay the SAMS a hospital fee and, as a private patient, he would pay Dr. X a professional fee. My fee would go on the books and Dr. X's fee would go in his pocket.

Taking into consideration that members of the SAP and the DCS can receive treatment in one of the military hospitals, what is the calculation as to the number of additional medical personnel needed in the military hospitals? The study has been done. To tell the truth, in order to increase capacity from 40 to 60 percent, we will need virtually no additional new personnel at that stage. If we are going to further increase it to 80 percent, however, we will surely need extra staff.

Martins: Will additional staff be needed to perform the administrative duties that will arise as a result of the increased bed occupancy rate?

Knobel: The number of people that will be needed for these is truly too small to be worth mentioning. It must be kept in mind that everything is already in place. A complete administrative system, a complete accounting system, a complete computer system etc. already exist. The administrative burden is not so much greater that a twofold increase in administrative staff would be required. It is possible than some staff will have to be hired in certain specialized fields. An exhaustive study has been made with respect to every administrative and medical discipline as it relates to every bed, maternity ward bed, surgical ward bed, internal medicine section bed, pediatrics, etc.

Martins: General, what is the situation in regard to making medical facilities available to SAP and DCS members in smaller communities where, for example, there is a prison that has a large staff?

The question has not come up. At this stage the agreement applies only to hospitalization at the three military hospitals for people in the military family who are in the vicinity

of the hospitals. There is indeed an agreement to make pharmacy services available for both organizations, but this will be a national pharmacy service.

Martins: With a view towards a changing South Africa and the possibility of a federal system of government and the potential inclusion of the TBVC [Transkei, Bophuthatswana, Venda, Ciskei] states, do you foresee the SAMS extending its services to assist the TBVC states' security forces as well?

Knobel: Yes, absolutely. At present the SAMS is organized into 10 commands. An additional three commands have just been authorized. In terms of the Defense Law, those commands are statutory and are given certain authority. Together with the health authorities, they serve [sic] on the Regional Health Coordinating Committee. If the self-governing areas were to join in the new governmental system of the future, they would be a part of the command in which they are located.

Martins: The system of voluntary enlistment for a fixed period has recently been announced by SADF Headquarters. In view of the SAMS' role in community involvement, how will that work within the framework of your medical plans?

Knobel: By using members who contract to serve in the SAMS in accordance with the fixed enlistment system, I can, for example, go to the KwaZulu government and find out what that government requires in order to operate a primary health-care system. In the past, some of the self-governing areas have asked us if we had a few medical orderlies who could run their health service.

The situation has now been created where we can ask the government in question to provide us with, say, 30 volunteers to work in the SAMS on a two-year contract as fixed-term service workers. In six months, we train such a fixed-term service worker in primary health care and basic military medicine. After that, this worker could be posted to the local SAMS command. We would pay his salary and he would work under the command of one of my doctors. But, among other places, I would station him in clinics where he would serve out the rest of his time under SAMS supervision and control and afterward he could be employed by the relevant authority of his home area.

During the time he serves in the clinic, such a medical orderly would receive further training. After completion of his enlistment, such a fixed-term worker can be registered by the SA [South African] Medical and Dental Board as a paramedic. The government can then hire him as an ambulance attendant, a fireman, or a medical orderly. In this way a young child [sic] is accepted from school, equipped with skills, and made an adult. Thus, he is now a responsible citizen with a career.

The training program for black citizens is already being implemented. To be sure, we have suffered a few knocks and bruises, but the ball is now rolling and it [the program] has already been approved by the SA Medical and Dental Board. Last year, there were about 400 positions that were

not filled by conscripts. I advertised those positions in THE SOWETAN and received about 6,000 applications. The applicants were selected and now a total of approximately 160 of them have already been trained. They are all young people from Soweto.

Now we have changed the plan. The goal of the RSA [Republic of South Africa] is to have affordable primary health care available to every man, woman, and child by the year 2000. In order to make this possible, the total involvement of the community must be obtained. It is precisely for that reason that we are reaching out to the communities of KwaZulu, Venda, Gazankulu, and the other self-governing states with the appeal: "Give me your children who know the language, who know the culture and what is acceptable to your community, and we will train them."

The idea has already been suggested that the SAMS should function as an autonomous and separate service department independent of the SAMS. Is perhaps this "provision of medical care to SAP and DCS members" and the reaching out to the TBVC states just the SAMS' first step in positioning itself to implement this idea? For years now we have been supporting all government departments. I have never yet experienced a problem with operating as an element of the SADF under the command of SADF Headquarters and the Minister of Defense & Public Works. We have never yet had a problem with orders or communications or a budgeting problem. It is therefore not necessary for the SAMS to split off or to become an independent department.

Martins: With today's trend toward personnel cutbacks and downsizing, why is the SAMS not scaling back?

Knobel: It is precisely because the morale of the SADF is very low at the moment due to personnel reductions that the SAMS must now be maintained at any cost. The one great benefit that the SADF has, is its health-care facilities. If the assurance that the member's health will be provided for is negatively affected, we are going to have a very big problem. If I were to retrench just to make the same cuts as in the Army, Air Force, or Navy, then I would cripple my service and have to cease providing certain kinds of care. The only way I can effect savings is by ceasing to provide dental care, for example, or eye care, or maternity services, or plastic surgery. And by doing that, I am reducing the member's benefits.

As far as support personnel go, we already have a much better ratio of support-to-line personnel in the SAMS than in the other health services in the country. I have already cut my support services personnel to the bone. What I now have left, is what I deem necessary to administer and to maintain SAMS services. I am not prepared to dismiss them—particularly if I have to expand my facilities in order to be to handle additional patients.

If there is expansion, it will be in line personnel. Our support services are not going to become much larger. Indeed, rationalization is currently under way. There are people leaving the service whose positions are not going to

be filled again. We have closed a lot of sickbays and clinics and in other cases we have colocated and centralized them. At present, we are still transferring our pharmaceutical services to the provinces and to other health services.

What is more, the SAMS organization that was authorized in 1975-76 has never been and is not now up to full strength. It never came up to where it should be and we have always been behind. The point that I wish to make, is that if you want to deal a final death blow to the SADF's morale, then start meddling in its health care services now.

Muslims Donate Mobile Hospital to Bosnia

93WE0422A Johannesburg ENGINEERING NEWS
in English 14-20 May 93 pp 1, 2

[Article by Marj Murray]

[Text] A R4-million fully equipped mobile hospital consisting of 20 separate isothermic containers has been handed over by Van de Wetering Engineering of Rosslyn to the Waqfū'l Waqifin Foundation (an Arabic term meaning "Gift of the Givers") to be shipped to war-torn Bosnia-Herzegovina next month.

"The Bosnian Project" was funded by the Muslim Community of South Africa and is to serve victims of the war.

The hospital was completed in 10 weeks by Van de Wetering which carried out the design, development and manufacture of all 20 units.

The theatre and sterilisation designs have been used previously in 'bush war' units, while the other units were specifically designed for the project.

Each modular container is six metres long and can be adapted to meet specific needs depending on the area in which it will operate.

The mobile hospital consists of an operating theatre, sterilisation unit, X-ray unit with darkroom facilities, an intensive care unit, two medical wards, two surgical wards, two paediatric wards (one general, one orthopaedic), two orthopaedic wards, a dental unit and an ambulance.

A casualty container for emergencies and an out-patient and dispensary unit are included.

In addition, there are two field tents with a 50-bed capacity, wheel chairs and all necessary equipment from blood pressure monitors to theatre clothing.

The unit will be maintained by a medical technical group in Bosnia.

National co-ordinator of the Waqfū'l Waqifin Foundation Imtiaz Sooliman says the motivation for the project stems from a religious instruction in the Koran—he who does not serve man does not serve God.

As yet, the exact destination in Bosnia is not known.

Anti-Hib Disease Vaccine Available for Children
93WE0446A Johannesburg THE STAR in English
31 May 93 p 5

[Article by Zingisa Mkhuma: "SA Gets Vaccine To Protect Babies"]

[Text] A vaccine to protect infants against the relatively unknown Hib disease which claims the lives of thousands of children worldwide, and leads to meningitis, has been made available in South Africa for the first time.

The vaccine, called HibTITER, is specifically designed to protect infants from as young as two months against the highly contagious *Haemophilus influenzae* typ-b bacterial infection which causes Hib disease.

Disabling

Toddlers and infants infected with the virus may suffer from spinal meningitis, often with severely disabling side effects such as deafness, seizures, paralysis, hearing and vision impairment, and mental retardation in infants and toddlers.

According to Dr Lyne Leibowitz, a microbiologist from the SA Institute for Medical Research, 95 percent of the cases of this invasive disease are children under the age of five. Sixty percent of victims develop meningitis, 6 percent die and up to 30 percent suffer permanent disabilities.

Hib disease is very contagious and is easily spread through casual contact. Researchers have found that infants attending play schools have a significantly greater risk of infection from the disease than other children in the community.

The risk is even greater in lower socio-economic population groups because of overcrowding and the general absence of preventive primary health care.

Leibowitz said 23 cases of meningitis linked to the Hib virus were reported at the Johannesburg Hospital between January 1992 and March this year in children between the ages of three months and three years.

Overseas studies have indicated that children have a 1:200 chance of developing some form of invasive Hib disease before their fifth birthday. In South Africa the figure is 1:250.

A spokesman for the company that imports the vaccine, Neville Huxam, said that very little research has been conducted to determine prevalence of the disease in South Africa.

Widespread

However, Huxam said, preliminary data indicated that the incidence of the disease may be more widespread than was suggested by officials.

South Africa has joined group of over 14 countries that are using the HibTITER vaccine to protect infants from the age of two months against the disease.

The vaccine is available on demand and at a cost from chemists and doctors.

Tygerberg Hospital: Infertility Research
93WE0463A Cape Town WEEKEND ARGUS
in English 5/6 Jun 93 p 5

[Article by Andrea Weiss: "Local Hospital Heads Infertility Research"]

[Text] Tygerberg Hospital's unit for treating infertility has been given a R1 million research boost by a German pharmaceutical company.

The unit's success rate has also attracted a number of foreign couples who have come for the treatment here at a reasonable price. Parents have traveled from the United States, Canada, Europe, several countries in Africa and the islands of Mauritius and Seychelles for treatment.

It costs about R2 500 a menstrual cycle—and the unit boasts an 80 percent success rate for three cycles. By comparison, at home, about 80 percent of women would become pregnant after nine months.

This is compared to about R7 000 a cycle charged at other centres in South Africa and up to R24 000 a cycle in the United States, according to Professor Thinus Kruger who heads the unit.

Proud new parents are Kim and Alan Zimmerman, whose three-week-old son, Dominic, is the unit's 529th baby. Mrs. Zimmerman, who has a three-year-old son, Joshua, could not be come pregnant by normal means after two ectopic (tube) pregnancies.

Economic constraints have not limited the unit's potential as it has become clinically self-sufficient while grants, such as the one awarded by Schering in Berlin, allows research to continue.

One possible spin-off of investigations into how sperm and eggs interact might be the development of an over-the-counter test-kit for men to establish how fertile they are.

The research has potential benefits both for fertility and contraception, said research chief Professor Daniel Franken.

Researchers are trying to isolate specific substances which aid the binding of the egg and sperm. This information could be used either to aid or to block fertilisation.

The unit has led the field with research into the shape of sperm, proving that acorn-shaped sperm are vital in the fertility process. This fact was recognised recently by the World Health Organisation even though several years ago there was much scepticism about Tygerberg's hypothesis.

ZIMBABWE**Rural Hospitals To Be Upgraded**

*93WE0441A Johannesburg ENGINEERING NEWS
in English 16 Apr 93 p 3*

[Article by Marj Murray]

[Text] An estimated R351-million is to be spent on the upgrading and construction of 16 rural hospitals in Zimbabwe.

The proposed works will comprise the upgrading of eight existing hospitals and the construction of seven new facilities throughout the country's eight provinces.

Tenders are to be invited in August and awarded in November with work scheduled to begin the same month.

The proposed time period for the project is from November 1993 to May 1995.

The World Bank has earmarked a R75-million loan for construction, with grants coming from the governments of Norway, Denmark, Sweden, Britain and other European communities.

The hospital complexes consist of up to 21 individual hospital buildings; sizes range from 40 to 106 beds and from 70m² to 400m².

The hospitals will cater for family planning, maternal and child healthcare services as well as rural health development, serving the needs of 2.5-million people.

Mugabe Discusses Meeting With Princess Diana

*MB1007124993 Johannesburg SAPA in English
1123 GMT 10 Jul 93*

[Text] Harare July 10 SAPA—Princess Diana, in Zimbabwe for a four-day working visit, called on President Robert Mugabe at the State House in Harare on Saturday morning, the ZIANA news agency reported. The princess and the president held a closed meeting which lasted for more than 30 minutes.

At a press briefing after the meeting, Mr. Mugabe said they had discussed her visit to various charities in the country. "We welcome her to Zimbabwe. We are delighted that she has come to work and follow routes which will lead her to a number of projects here," he said.

Mr. Mugabe added they had discussed the country's AIDS epidemic, which was now beyond control. "I have told her that there is some realisation from some sections of our community who have taken it (the AIDS epidemic) seriously. But others still continue to be reckless," he said.

Mr. Mugabe said Princess Diana had conveyed to him personal greetings from Queen Elizabeth. The Princess of Wales also gave him a souvenir before receiving a sculpture of an African princess from the Zimbabwe president.

LAOS

Nouhak Phoumsavan Opens Inoculation Conference

BK0806150393 Vientiane Vitthayou Hengsat Radio Network in Lao 1200 GMT 8 Jun 93

[Text] The nationwide conference on promoting an enlarged inoculation campaign was held at the National Assembly in Vientiane on the morning of 8 June under the chairmanship of Nouhak Phoumsavan, president of the Lao People's Democratic Republic [LPDR]. Attending the conference were more than 100 persons, including provincial governors, chiefs of the public health services, chiefs of projects for the enlarged inoculation campaigns from all provinces, municipalities, and Sianghon-Hongsa special zone, ministers, deputy ministers, and representatives of mass organizations in the center. Representatives of the international organizations UNICEF, WHO, the Japanese International Cooperation Organization, and some non-governmental organizations also attended the conference.

The conference will study and endorse the duties of the Committee for Mothers and Children at each level. At the same time, it will also discuss and endorse the direction, plans, objectives, measures of implementation, and detailed plans of the inoculation work from 1993 to 1996 with a view to fulfilling the inoculation program throughout the country by 80 percent by the year 2000.

THAILAND

Insect Bite Can Cause Blindness

93WE0484A Bangkok THAI RAT in Thai 7 Jun 93 p 5

[Excerpt] [passage omitted] The "konkradok" beetle is an old harmful insect, but only recently has it become well known and caused alarm among entomologists. This started when this dangerous beetle began infecting nursing students at a nurses college. Several dozens female students were infected. Finally, one of the beetles was captured and sent to the Division of Medical Entomology, Department of Medical Sciences, Ministry of Public Health, for study.

Dr. Panya Sonkhom, the director-general of the Department of Medical Sciences, and Mr. Prakhong Phan-urai, the head of the Division of Medical Entomology, discussed this beetle and the nature of its poison:

"The latest insect to cause problems is known as the 'konkradok' or 'konngon' beetle. It is another type of insect that is capable of causing public health problems. When it clings to the body somewhere, particularly soft areas of the skin, if the person tries to crush it or brush it off, this insect will release a poisonous substance onto that area of the skin. If it is around the eyes, the person could go blind."

"This beetle belongs to the order Coleoptera, family Staphylinidae, genus Paederus. There are at least 20 types of insects belonging to this order. Their growth can be divided into four stages: egg, larva, pupa, and adult."

"As for the egg stage, normally, this female beetle likes to lay her eggs in a wet area in loose soil, which is covered with decomposed material, along the edge of a ditch, canal, or well. The eggs are laid about two-six inches from the edge of the water. Stated simply, the female will lay her eggs anywhere there is dried grass cuttings or wet garbage near a water source. When it rains and puddles form, they produce numerous sources for the birth of this type of beetle."

"In the larva stage, the body is quite long. In particular, the stomach is longer than any other part of the body. The head is quite large. It has short, hard feelers. Even though it has six legs, it can run very fast. The stomach is covered by two long cuticles. The larva like to eat decomposed materials and small grubs of various insects in the soil. After six-10 days, the larva turn into pupa."

"In the pupa stage, this insect resembles the pupa of a butterfly, but it is much smaller. The legs attached to the body are clearly visible. The pupa stage lasts just three-four days, after which the beetle becomes an adult and can bother people. During the adult stage, this beetle has a long, narrow body. The body, which is about 7 mm long, is a bright, shiny color. The head is black. The feelers are quite long. The body is composed of 12-13 segments. The part of the feelers nearest the body are brownish yellow in color, and the tips of the feelers are black. The breast is reddish brown."

"One feature that is clearly visible is that the first set of wings are hard and short. They have a dark green or glassy bluish color. The second set of wings are large and fold up under the hard wings. The stomach, which is long and extends beyond the wings, is orange in color, except for the last two segments, which are black. The legs are a yellowish brown color, and the joints of the rear pair of legs are black."

After describing the characteristics of the beetle from the egg to the adult stages, the director-general and the head of the Division of Medical Entomology stressed that if someone sees one of these beetles, he should not touch or go near it. They then said:

"This beetle likes to live in wet soil near sources of water where there is a covering of vegetation, such as in vegetable gardens and fields planted in other crops, particularly in holes of stemmed plants that cover the ground and keep it wet, such as potatoes, melons, and strawberries, and in wet rice fields along ditches, canals, reservoirs, and rivers. This insect is attracted by lights. It can run fast and fly very well. It likes to flex its stomach all the time. Besides this, it can quickly fold its second set of wings beneath the first set."

"It's thought that this helps protect the insect. Normally, this beetle does not harm people unless they try to brush it off or crush it, which will frighten it. When it becomes frightened, it emits a poison onto its enemy. Thus, if someone sees this beetle on him and hits it, that will only result in him getting the poison onto his skin, because the poison will flow out of that part of the beetle's body that was crushed. This poison is called paederin."

"After coming in contact with this poison, the first symptoms are redness of the skin, itching, and clear pustules. These may become infected and develop into sores. Later on, the sores will develop scabs and disappear on their own within one to two weeks. If someone comes into contact with the poison of this beetle, he should not scratch the area. He should apply the red lime eaten with betel leaves or dissolved ammonia to the area with pustules. This is because the poison of this beetle acts like an acid and can cause severe pain. Thus, people should not use mentholated ointment or any ointment that produces heat. Because the red lime has an alkaline effect, it can help ease the pain and burning."

"What is most worrisome is that if this beetle flies or climbs onto a person near the eyes, he should not try to brush it away quickly or crush it against his skin. Instead, he should try to gently dislodge it or pluck it off. But if the poison gets onto the skin, the first thing a person should do is immediately wash the area with tap water. That will help relieve the pain and burning. After that, he should apply a medicinal ointment and then go see a doctor as soon as possible. Scratching will spread the poison, and the person could go blind."

"As for preventing this insect from breeding, that depends on its food. It likes mold, seaweed, and rotten vegetables. Even though it is a poisonous insect, in the ecological system, this beetle is a type of biting insect that feeds on other insects that eat the crops of farmers, particularly aphids, red mites, red spiders, and insect eggs. Thus, it is also a useful insect. However, we can prevent it from breeding by removing decomposed piles of grass and not letting garbage pile up near people's homes. Besides this, people should not attract this beetle by turning on neon lights. These lights are often left on in the rooms of students and attract this beetle, which can pose a danger to people."

"Actually, we have known for a long time that this type of beetle is poisonous. But in the past, we have given more attention to insects that carry diseases. But as time passes, the environment changes. In the past, the use of electricity or lights was not widespread. But today, people in almost every subdistrict and village in the country turn on their lights at night. This attracts this insect, and their numbers have increased by breeding in piles of grass or garbage. And they are attracted to people by the bright lights used by people."

Now that we know something about the physical characteristics, dangers, and factors that serve to increase the population of this type of beetle, what we can do to protect ourselves is bury or burn our garbage and cut grass and turn off lights when they aren't needed so as not to attract these beetles. That is all that is necessary to prevent these beetles from becoming a serious problem.

Paper on Worsening Narcotics Situation in Country

BK2106014993 Bangkok BANGKOK POST in English 21 Jun 93 p 4

[Editorial: "A national threat of heroin scourge"]

[Text] The dramatic rise in the use of heroin by Thais in recent years is one of the least noticed, but most serious problems of our country. That large numbers of illicit narcotics users are in the nation's rural areas only emphasises the severity of the situation. Heroin traffickers, large and small, have long sought ever more inroads into decent society. Along their route, they have corrupted portions of past governments and law enforcement agencies, undermined national security, split families and perverted young people. Now, add to the long list of drug-peddling's evils the spread of AIDS. A fresh assault on narcotics and those who profit by them is overdue.

The most tragic and ironic rise in the number of heroin addicts has come among rural hilltribes, according to recent studies. A physician at the Mae Chaem district hospital in Chiang Mai, Dr Phisut Phosumithok, reported earlier this month that "more and more rural people in the highlands have turned to heroin and the situation is getting worse." He, and concerned officials in other up-country areas, report villages where 100 percent of the population is addicted. This includes, of course, newborn babies of addicted mothers.

These are villages where local drugs have been eliminated, through combined hard work by residents and their friends. First among those who have helped find new prosperity for former opium-growing villages is His Majesty The King. He and programmes he helped design and foster have wiped out opium growing, and replaced the poppy with a wide variety of replacement crops. These, in turn, have brought undreamed of prosperity to many villages in the space of less than one generation. Unexpectedly, some of the increased income has gone to buying heroin.

It is no coincidence that massive increases in the spread of the deadly HIV virus have accompanied the swelling population of heroin addicts. Statistics are still inexact, but all health experts agree that the shared hypodermic needle of the heroin addict is a major source of the spread of HIV and eventual deaths from AIDS. Peddling of illicit drugs is a serious offence against the nation in itself. The spread of AIDS compounds the crime. The media already have reported stories of addicts spreading AIDS to their spouses and the births of AIDS-stricken babies. It is clear there will be many more such sad stories before we can turn the corner and start to defeat the entangled problems of drug addiction and AIDS.

It is also clear that the fight against narcotics must take place at many levels. Perhaps the most important aspect of the battle is education. People—especially young people—are still often oblivious to the total corruption of the individual which heroin causes. Indeed, addicts spread the HIV virus through infected needles even when they know

'hey are doing so. That is the fantastic addictive ability of the drug at work. Addicts, in the words of an anti-drugs agent, "will kill their grandmother for one more fix." Today's educational programmes aimed at getting children to reject narcotics are weak at best and often non-existent in many school curricula.

Law enforcement plays a crucial role in combatting drugs. The Office of the Narcotics Control Board (ONCB) and other honest, effective, anti-narcotics police units need better public support. Police must be encouraged to go after the biggest and most vicious drug peddlers. They must know we will all appreciate and reward their successes. Drug trafficking cases against the several "Mr Big" drug peddlers should be pursued through the courts without favour.

At least as important is a new focus by our diplomats. In recent years, Thailand has become a net importer of illicit narcotics. Our foreign ministry and the foreign affairs sections of other ministries must work to convince neighbouring countries to join us in the battle against illicit drugs. We should redouble the international effort to identify, arrest and prosecute narcotics traffickers.

In short, new circumstances warrant new policies. There is nothing to be gained by finger pointing and fixing blame. The task at hand is clear, and it is difficult. The combination of heroin and AIDS threatens many of our villages and neighbourhoods already. It is time to move against this threat to our country. If we fail to meet the challenge posed by the drug traffickers against us and our children, all of Thailand will be the loser.

Government Urged To Be Firm With U.S. Over Drug Patents

*BK2106020593 Bangkok BANGKOK POST in English
21 Jun 93 p 4*

[By Aphaluk Phathiasewi: "Firm stand needed on patent protection for medicines"]

[Text] The government should make a careful decision on retroactive "pipeline" patent protection for drugs before medicines become too expensive for most people in the rural areas to afford.

Pipeline protection for new pharmaceuticals is providing a term of exclusive marketing rights to new drugs invented but not yet available in Thailand.

The United States says Thailand should grant seven years exclusive marketing rights through safety monitoring or other administrative measures to these drugs in the pipeline protection.

Potential damage on Thai drug production is hard to estimate because other factors like inflation, increasing population and increasing demand for medicines have to be taken into consideration.

The United States has threatened that Thailand would be the first country to be cut out of the Priority Foreign Country (PFC) list if it does not agree to solve problems of

patent and copyright laws violation, by providing pipeline protection dating back seven years for new drugs that have not yet been brought into the country.

Many public health activists accept that the violation of patent rights of products like video tapes, cassettes, clothes, watches, etc. had not been strictly controlled. But they argue that medicine is an absolutely different issue and does not involve intellectual property rights.

Our government should ignore the demands of the US and take a firm stand regarding pipeline protection of medicines, because it is just "a pinch" in the issue of patents protection.

Commerce Minister Uthai Phimchaichon earlier stated that if we face PFC, it would affect about 4,500 million baht of our export products, compared to the loss of about 25 million baht on medicines.

The figures estimated by the Public Health Ministry show that we would face a loss of about 3,000 million baht if pipeline protection is provided, which means the medicine prices are underestimated by the Commerce Ministry.

Providing back-dated protection to pharmaceutical products that have already been invented but not sold in the country means we will have to buy expensive medicines because we import about 70 percent of our medicines.

The present Pharmaceutical Patent Law already protects foreign medicines sold in this country, therefore this has nothing to do with violation of Intellectual Property Rights (IPR), stated Prof Chirapon Limphananon of Chulalongkorn University's drug study group.

She said this issue should be described as a matter of monopolising prices of foreign medicine instead.

The pipeline patents protection will affect the country's economic, social and political status in many ways. It will affect the public health service of the country because a lot of budget will have to be spent on the purchase of medicines and over 460 small hospitals in the rural areas throughout the country will not be able to afford the medicine.

The effect will be observed in the long term because the new medicines that demand pipeline protection will gradually come into our country without knowing when they will be registered. The new medicines will monopolise our market for seven years after registration, before a similar type of medicine is produced.

When ordinary medicine itself becomes so expensive, one can imagine the effect of retroactive patents protection on AIDS, which is an extremely important national issue.

The AIDS problem is increasing in our country each year, and it is estimated that by the year 1994, there will be 14,016 AIDS cases and 1,306,835 HIV carriers. AIDS can lead to other diseases, also known as opportunistic diseases like tuberculosis, pneumonia and fungal infections, due to deficiency of immunity.

Most AIDS carriers are from the lower income group and they have to continuously take medicines to try to maintain their immuno deficiency. Medicines are not like other products that can be replaced, especially for specific diseases like diabetes, cancer, AIDS and other heart diseases. The bottom line is that it may be too late for people in the lower income group to get the medicines they need by the time they can afford them.

VIETNAM

Vo Van Kiet's 7 July Activities in Cuba Reported *BK0907091893 Hanoi Voice of Vietnam Network in Vietnamese 1430 GMT 8 Jul 93*

[Text] On their second day in Cuba, 7 July, Prime Minister Vo Van Kiet and other comrades of the high-level Vietnamese party and government delegation visited a number of science and public health establishments in the capital city of Havana. In his company were Comrade (Concepcion Campa Urrego), member of the Communist Party of Cuba's Central Committee Political Bureau and director of the Carlos Finlay Research Institute; and Comrade (Ramon Dias), deputy minister of public health.

At the Genetic Engineering and Biotechnology Center, Director (Manuel Dimbol) briefed the prime minister on the activities of the advanced science center which is the birthplace of 169 medical products, some well-known worldwide such as the vaccination against meningitis B, a burn medicine, the vaccination for hepatitis B, AIDS diagnosis equipment, and industrial enzymes.

Next, the prime minister visited the National Science Research Center which is the largest of its kind in Cuba. The center has exported its products to many countries, including PTG medicine to treat high fat level in blood and to assist the cardiovascular system, which is now being

sold to nine countries; the medical equipment of (Medincep) which is used to diagnose neuro-system disorders; artificial teeth made of coral; and so forth.

At the Carlos Finlay Institute, the vaccine and serum research and production center which was named after the scientist who discovered the cause of tuberculosis and Cuban jaundice malaria, the prime minister listened attentively to an introduction of medical research and production activites of the center.

Comrade (Concepcion Campa Urrego) and the directors of the aforementioned centers all expressed their readiness to share their experiences and to cooperate with Vietnamese scientists and medical agencies in areas of biotechnology, pharmacy, and medicine, where Cuba has scored excellent achievements.

Prime Minister Vo Van Kiet expressed his profound interest in the achievements of Cuba in the medical, biotechnological, and pharmaceutical fields, and the export potential of these products. The prime minister commended the Cuban scientists for their great contributions in these important achievements. The prime minister also praised the contingent of cadres, workers, and other personnel of the centers he visited. He also reminded the Vietnamese representatives of relevant sectors in the delegation to pay appropriate attention to the possibility of cooperation in these fields.

On the afternoon 7 July, the party and government delegation headed by Prime Minister Vo Van Kiet, visited the Revolution Square and paid a floral tribute to the monument of Jose Marti, the father of Cuba's independence. Accompanying the delegation was Comrade Carlos Lage, member of Communist Party of Cuba's Central Committee Political Bureau and vice president of the Council of State and executive secretary of the Council of Ministers. The delegation laid a wreath of flowers with a line which read 'To Revered Comrade Jose Marti, the Cuban People's Hero.'

ALBANIA

Ministry Signs Health Agreement With Russian Federation

AU2805133693 Tirana ATA in English
1000 GMT 28 May 93

[Text] Tirana, May 28 (ATA)—An agreement was signed in Moscow between the Ministry of Health and Environment Protection of the Republic of Albania and the Ministry of Health of the Russian Federation for cooperation in the area of health and medical sciences.

The agreement foresees the cooperation in running the health service, prophylactic medicine, scientific researches, the qualification and specialization of cadres, the production of medical apparatuses, in the pharmaceutical industry, etc.

Recent Aid Fails To Improve Medical Situation

AU1206163293 Tirana ATA in English
1205 GMT 12 Jun 93

[Text] Tirana, June 12 (ATA)—Jerina Zaloshnja writes: Recent medical aid provided to Albania by various benevolent associations and organisations is not improving its medical situation. Hospitals continue to lack medical equipment, aspiratory apparatuses, ECG [electrocardiogram] equipment, and even the sterile supplies for the emergency rooms. This situation is also due to the fact that the aid is not provided to hospitals with more urgent need.

Also, doctors are not provided with contemporary study materials. For two or three years now, the national library is not furnished with the latest medical magazines. The library of the medicine faculty is empty, except for some books donated. Even these books are quickly appropriated by certain doctors. The Albanian students of medicine have nothing to study except written lectures. The doctors have to learn on the basis of their experience only.

The benevolent aid cannot recover all this collapse of the Albanian medicine, especially when it is distributed irregularly. It seems that the prediction by the Minister of Health Shehu that the Albanian medicine needs many years to reach the European levels is turning out to be true.

Serb Police Conduct 'Real Purges' on Albanian Doctors

AU1806070793 Tirana ATA in English
1209 GMT 17 Jun 93

[Text] Tirana, June 17 (ATA)—In the course of the Serbian platform, the Serbian police have violently dismissed from clinics, laboratories, and surgical theatres about 2,000 Albanian medical workers, 400 of whom are qualified doctors with scientific titles. This campaign of discharges is going on at a time when the health situation is very grave. Nearly 84 percent of the deaths by contagious diseases in former Yugoslavia are registered in Kosova. The lack of food articles for children and the whole population in general is very apparent due to the high percentage of unemployment.

A real purging has been made especially in the Clinic of Gynecology and Obstetrics, where not a single Albanian doctor is employed. After the adoption of "emergency measures," there were 50-60 births a day. During 1989, there were 11,652 babies born, of whom 93 percent were by Albanian mothers. At present, the birthrate is 4-5 births a day. As a result of the grave situation created, Albanian mothers are forced to give birth to their babies at home without any medical assistance and in very bad sanitary conditions. The same situation is noticed in surgical clinics, where as a result of dismissals of Albanian doctors, the patients are afraid of undergoing operations by Serbian doctors, who have frequently caused great complications for them.

BULGARIA

BSDP Dertliev Praises Berov's Skopje Visit

AU0706205293 Sofia BTA in English
1912 GMT 7 Jun 93

[Today]—BTA lead]

[Excerpts] Sofia, June 7 (BTA)—Dr. Petur Dertliev, leader of the Bulgarian Social Democratic Party, praised highly the visit to Macedonia by a Bulgarian governmental delegation at a news conference today. He said "bravo" to prime Minister Lyuben Berov for his decision to make the visit. According to Dr. Dertliev, the prime minister's visit shows Mr. Berov is a statesman who sees in perspective Bulgaria and the Bulgarian ethnic community rather than a man offended at this or that.

In connection with an article in today's DUMA the daily of the Bulgarian Socialist Party, on the informal visit by CIA Director James Woolsey and his meeting with President Zhelev, the president's foreign policy adviser present at the meeting said the speculations and suggestions in the article had nothing to do with the truth and were completely groundless, the president's Press Office reported. None of the "six points" mentioned in the article were discussed. The discussion focused on the latest developments in Belgrade, the relations between Yugoslavia and the European Community and the danger of a possible turn for the worse of the situation in the region. The president set forth and motivated the principles of Bulgaria's Balkan policy, as in many other meetings with Western political leaders. The provocative allegations spread by DUMA may have an adverse effect on Bulgaria's relations with its Balkan neighbours and may cast a shadow on Bulgarian-American friendship and cooperation, the Press Office said. The DUMA article says, among other things, "in connection with Macedonia's consent to have U.S. troops deployed on its territory, it became known that the United States have asked Bulgaria for assistance in six areas too - airports, navigation, storehouses, supply of provisions, hospitals, rehabilitation. According to an adviser to the president, the Bulgarian side thinks it would be acceptable to receive injured and sick persons for treatment and rehabilitation only."

A European Community medical mission today started a three-day inspection of areas until recently affected by foot-and-mouth [FMD] disease. The competent Bulgarian authorities said the focus of infection in Simeonovgrad (near the border with Turkey) was eliminated on June 1. The FMD virus in Simeonovgrad was of the O-1 type, it was said at a briefing at the Agriculture Ministry today. The same virus has caused the disease in Turkey which has 581 foci of infection. It was not probably by chance that the epidemic broke out near a campsite for Turkish citizens, Efir 2 of Bulgarian Television said in its newscast, quoting data cited at the briefing. The EC mission met with Georgi Tanev, minister of agriculture, and with the Bulgarian veterinary control authorities. The EC delegation visited Simeonovgrad, BTA's local correspondent reported. The investigation has a working hypothesis that the infection spread into the cow farm from a nearby eatery.

The Supreme Court today granted an appeal by the Prosecutor General and voided a Council of Ministers' decision of April, which revoked a decision of the previous government, headed by Filip Dimitrov, that the building of the court of law, housing the National History Museum, should be occupied by the Ministry of Justice.

More than 150 journalists and other members of the staff of the Bulgarian News Agency (BTA) categorically denied accusations that BTA is an anti-Bulgarian and propagandist-repressive institution at a meeting today. They reacted strongly against charges that BTA spreads "false and often deliberately distorted information" and that it "constantly selects and spreads all kinds of anti-Bulgarian material, denigrating Bulgaria," as the government claimed in its motives for the dismissal of BTA Director General Ivo Indzhev. The participants in the meeting confirmed their wish that BTA remain a national institution independent of the changing political situation, as it has been since its directors ceased to be appointed by politburos and secretariats. BTA's staff made this request in an open letter to President Zhelev of March 19. Mr. Indzhev has appealed to the Supreme Court to rescind the Council of Ministers' decision and the prime minister's order about his dismissal on the grounds that they were issued beyond the Council of Ministers' competence. The Supreme Court has accepted to consider the appeal.

Milan Drenchev, chief secretary of the Nikola Petkov Agrarian Party, and Dr. Petur Dertliev, leader of the Social Democrats, today said parliament should immediately decide that all police files should be declassified for the Bulgarian public to learn "who's who." At separate news conferences the two leaders took a strong position on the issue on which the majority in parliament imposed a veto some time ago.

In an interview for the UTRO daily of Ruse Filip Dimitrov, leader of the Union of Democratic Forces (SDS) and former prime minister, says "30 to 35 percent of the electorate vote SDS following the dictates of the heart." In

his view, the problem is "what proportion of the electorate would vote SDS according to the dictates of reason." [passage omitted]

Velislava Gyurova M.P. of the SDS told BTA she had filed an application to leave the parliamentary SDS today. She will stay in parliament as an independent M.P. for the time being. [passage omitted]

CZECHOSLOVAKIA

Health, Agriculture Sectors Hamper Privatization
AU1106145093 Prague CTK in English
2014 GMT 9 Jun 93

[Text] Brno, south Moravia June 9 (CTK)—A complete package for the second round of coupon privatization should be ready by the end of this year, Jiri Skalicky, minister for the administration of national property and its privatization, said today.

Addressing a meeting of the Civic Democratic Alliance (ODA), to which he belongs, Skalicky said that by the end of the year a list will have been drawn up of all the key state-owned properties to be included in the second round of coupon privatization, which is due to start this autumn.

Skalicky said that the speed at which the suggestions were being prepared for governmental decision was only just feasible. There were problems with the privatization of agriculture and the health service. The ministry was now working more systematically than in the first round of privatization in 1992, and was considering which form of privatization was best for which businesses. It is demanding work, because the future of key sectors is being decided here, such as telecommunications, mining and refineries, he said.

He added that a key problem for agricultural privatization, concerning state farms rather than collective ones, were too long time limits for the acceptance of restitution claims. His ministry had returned most privatization projects for state farms to the ministry of agriculture for completion. As yet only about six percent of the projects were satisfactory.

Skalicky believes that his ministry has done all it can with regard to the privatization of the health service. I cannot say the same of the Ministry of Health, he added.

Minister Outlines Citizen's, State's Health Care Role

AU0507171593 Prague CTK in English
1340 GMT 1 Jul 93

[Text] Prague July 1 (CTK)—The citizen's responsibility for his or her health condition should be increased, and this should have an impact on the means he or she wants to invest in health care, new Health Minister Ludek Rubas told the parliamentary Committee for Social Policy and Health today.

The newly appointed minister (June 22) stressed the active participation of every citizen in providing health services. The citizen who damages his own health should be placed at disadvantage.

Rubas wants to discuss the patient's share in health care in the government. He does not intend to limit access to health care, but wants health care to be funded from several sources.

Most measures, which he is about to implement for the sake of the transformation of the health care area, will demand legislative changes, said Rubas. It will be necessary to revise the funding of health care.

He said that a hunt for points (current rating system is based on points calculated for individual types of medical care) must stop, and the assessment of medical operations must be oriented to the result of the physicians' work, i.e. successful cure of the patient. A lump sum should be established for a given type of medical care.

The state's role should be limited to the elaboration of concepts and laws, noted Rubas. The ministry is to control and guarantee those services which the state can provide cheaper than private physicians.

I found that not all of the previous ministry's activities were in line with the government's ideas, said Rubas on the prepared changes in the structure and staff of the ministry.

Unlike Petr Lom (his predecessor), he wants to act in the government even in matters outside health care, added Rubas.

Defense Ministry Decides To Investigate Gulf War Illnesses

AU1407135393 Prague MLADA FRONTA DNES
in Czech 10 Jul 93 p 1

["(km)" -signed report: "The Army Is To Investigate the Health Problems of Soldiers From the Gulf"]

[Text] Prague—The Ministry of Defense will investigate the reports that Czech soldiers who took part in Operation Desert Storm in the Persian Gulf have health problems and it will also look into the possible consequences of poisoning or irradiation. Colonel Petr Miko, the Czech Army General Staff Health Administration spokesman, told us yesterday that all the veterans of Operation Desert Storm in the Czech Republic will be invited for a medical check-up.

The ministry's decision was made in reaction to a claim by Peter Zelinsky, a spokesman for the Czech war veterans, who told MLADA FRONTA DNES last week that Czech soldiers, like British and American veterans, have health problems following the Gulf War.

The war veterans consider the Health Administration's decision to be a turnaround they can only welcome. The Ministry of Defense had originally just told Gulf War veterans to go to a medical center or to consult their own doctors about their problems.

Gulf War Veterans Reportedly Exposed to Nerve Gas

AU2707130493 Prague CTK in English
0824 GMT 26 Jul 93

[Excerpt] Prague, July 26 (CTK)—A Czechoslovak anti-chemical unit measured concentrations of paralyzing substances during the Persian Gulf War, the independent daily MLADA FRONTA DNES quotes a commander of an anti-chemical Czechoslovak military unit as saying. The official emphasized that the chemical alert had been given twice. According to information of another commanding officer of the anti-chemical unit, it was probably due to Sarin gas.

The daily points out that at the beginning of the Persian Gulf War trace elements, which did not endanger the soldiers' health, were detected. But U.S. official sources say today that some of the soldiers who fought in the gulf have health problems. The Czech war veterans do not rule out that similar problems will soon affect them.

The commanding officer said that he had been in good condition before leaving and had fallen ill after his return. Without any explanation, the war veterans were forbidden to donate blood, notes MLADA FRONTA DNES. [passage omitted]

Daily Claims Five Gulf War Veterans Have Health Problems

AU2907150893 Prague MLADA FRONTA DNES
in Czech 28 Jul 93 p 1

["(km)" -signed report: "Five Soldiers Have Health Problems From the Gulf"]

[Text] Prague—So far, five Czech soldiers who served in the Persian Gulf War have reported health problems to military hospitals. This statement was made to us by Peter Zelinsky, the war veterans' spokesman.

He thus contradicted the claim made on Monday [26 July] by Petr Miko, deputy chief of the General Staff Health Administration, that, to date, not one member of the former Czechoslovak Anti-Chemical Unit has used the opportunity to have a check-up in military medical facilities.

MLADA FRONTA DNES has at its disposal oral statements from two commanding officers in the Czechoslovak unit who claim that they have health problems and that they have been to a military hospital.

Doctors discovered in one of them a positive Australian antigen (the carrier of hepatitis). Another officer has swollen joints and is suffering from muscle spasms. At the moment, they do not want their names made public. They are awaiting Defense Minister Antonin Baudys' response to the situation.

Another soldier, Jan K., has problems with his blood count and liver and is losing weight. So far, we have been unable to contact the other two war veterans who have health problems.

[Prague MLADA FRONTA DNES in Czech on 28 July on page 2, under the headline "There Are Apparently Documents About the Occurrence of Sarin in the Gulf," carries a 200-word "(km)"-signed report, which claims that, during the conflict with Iraq, Czechoslovak Gulf War veterans "drafted a report referring to the possible health risks facing soldiers, because smoke from the burning oil wells contained carcinogenic substances." This report also quotes Petr Zelinsky, the veterans' spokesman, who claims that the General Staff must have at its disposal the unit's log, "which unequivocally shows that concentrations of paralyzing substances were measured in the Gulf."]

ROMANIA

Statistics Published on National Death Rates

AU2607175493 Bucharest ADEVARUL in Romanian
21 Jul 93 pp 1, 2

[Val Valcu report: "Romania Ranks Second in the European Death Rate"—all figures as published]

[Text] Data released by the Calculation and Sanitary Statistics Center of the Ministry of Health confirm the tragic situation of our population after 45 years of communism. Owing to the fact that over decades no investments were made in health care, as a consequence hunger, malnutrition, overall poverty, and lack of proper education have pushed our nation into this situation which still prevails after three years of the transition period. However, one should note the remarkable vitality of the Romanians, especially if compared with that of other nations that have been living under incomparably better circumstances.

Concerning the overall death rate, Hungary ranks first in Europe, with 14.57 deaths per 1,000 inhabitants, followed by Romania with 14.02, Bulgaria with 13.69, Switzerland with 8.24, and France with 8.17.

Concerning deaths caused by illnesses of the respiratory system, Romania ranks first in Europe with 915 deaths per 100,000 inhabitants, followed by Bulgaria with 869, and France with 259.4.

As to the deaths caused by malignant tumors, Hungary ranks first with 303.1 deaths per 100,000 inhabitants, followed by Czechoslovakia and Denmark, while Romania ranks 15th, with 159.6 deaths per 100,000 inhabitants.

Concerning deaths due to violently inflicted wounds, our country ranks seventh with 76.4 deaths per 100,000 inhabitants; Hungary is first with 128.9, followed by Czechoslovakia with 92.8.

Hungary ranks first in suicide cases, whereas our country only ranks 14th. However, our death rate is considerably increased by the large number of victims killed by illnesses of the respiratory system, especially bronchial and lung diseases, which cause 117.9 deaths per 100,000 inhabitants. Current cigarette advertising in our country might play a major role in that.

Romania ranks first in infant mortality rate as well, with 22.73 deaths per 1,000 live births and with 61.1 deaths per 1,000 during the first year of the babies' lives.

The study has been completed on the basis of statistical data obtained over 1989, 1990, and 1991, but it may still be considered as most up-to-date not just because of the necessary amount of time to process the information but also owing to the fact that it takes at least as long as one decade to alter the situation significantly.

YUGOSLAVIA

Medicine Shortage Causes Rise in Infectious Diseases

LD2606163693 Belgrade TANJUG in English
1446 GMT 26 Jun 93

[("Pool" item)]

[Text] Belgrade, June 26 (TANJUG)—Infectious diseases are on a noticeable rise in the Federal Republic of Yugoslavia as a result of a lack of medicaments and declining standard of living caused by the tough UN economic sanctions against Yugoslavia, the Belgrade daily POLITIKA writes on Saturday.

Belgrade's clinic for infectious diseases lacks antidote for snakebite, vaccine against rabies, human serum and antitetanus vaccine, the paper quotes Vladimir Ilic, director of the Institute for Infectious and Tropical Diseases of the Serbian Clinical Centre, as saying.

Antibiotics are also running out and there is a lack of reagents for bacteriological and virological tests for measles and herpes, said Ilic, adding that many laboratory tests have therefore been reduced.

On that clinic, there are enough medicaments for AIDS patients owing to some humanitarian organizations but they will suffice for only another month or two, said Ilic.

As a result of the United Nations sanctions against the Federal Republic of Yugoslavia (imposed on May 30 last year and tightened in April this year) as well as to the deteriorating economic conditions, hospitals face many difficulties, including the shortage of detergents and parts for sanitary facilities and poor meals, said Ilic.

At the plastic surgery clinic in Belgrade, the lack of surgical materials is the biggest problem because the nature of the injuries treated there requires large quantities of suture, needles, bandages, elastic plaster, etc.

The number of patients has increased lately in that clinic because more people get burns while handling fuel containers now that fuel is difficult to find, said director of the clinic Miodrag Karapandzic.

The clinic has also struggled in vain over the past five months to make operational the bath tub for patients with serious burns, said Karapandzic, adding that many other vital medical apparatus were also out of use because of the lack of parts.

The United Nations has banned trade and financial transactions with Yugoslavia, which has made virtually impossible the obtaining of medical equipment.

Although exports of medicaments to Yugoslavia are not banned, the country does not have enough foreign currency to buy them because its exports are banned.

Survey Shows 'Dramatic' Shortages of Medicine

*LD1307154793 Belgrade TANJUG in English
1500 GMT 13 Jul 93*

[Text] Belgrade, July 13 (TANJUG) - Shortages of medicaments in the Yugoslav Republic of Serbia, which have become dramatic over the past month, threaten the lives of patients suffering from chronic diseases, shows a survey conducted by TANJUG.

Producers say the main reason for reducing their deliveries of medicaments or stopping them altogether is the lack of some raw materials which are normally imported.

Although medicaments and funds for purchasing medical supplies abroad are exempted from the sanctions imposed against the Federal Republic of Yugoslavia under United Nations Security Council Resolution 757 the issuing of permits for exports to Yugoslavia is being constantly delayed, said Borislav Vukovic, president of the Yugoslav Government committee in charge of following the effects of the sanctions.

Yugoslav Prime Minister Radoje Kontic on Friday said that the United States was behind the international community's decision not to allow imports of pharmaceutical raw materials in Yugoslavia.

"The United States does not allow imports of raw materials knowing that it would force us to import medicaments, which would exhaust the country's already scarce foreign currency reserves," he said.

Shortages of medicaments also result from their very high prices. The government approved the latest price rise more than a month ago although the pharmaceutical industry pays for raw materials in foreign currencies, whose exchange rates rise a few percent daily. Thus, by selling medicaments at low prices the pharmaceutical industry makes losses.

State-owned pharmacies in Serbia's southern province of Kosovo-Metohija received no medicaments at all in the past two weeks, said Ljubomir Cvetkovic, director of the Pristina firm Farmed, the province's only supplier.

Private pharmacies are supplied better but the prices of some medicaments exceed the average monthly pension.

In Kragujevac, central Serbia, state-owned pharmacies are empty while most of the private ones are closed down. Only insulin and penicillin are obtained for urgent cases owing to the good will of the suppliers.

Director of Vranje's central hospital Konstantin Popovic said that the clinic, which also provides for all other

hospitals in southern Serbia, had received only a few medicaments for chronic patients in more than a week.

Surgical materials are also in short supply and doctors operate only in cases of emergency, said Popovic.

Yugoslav doctors have repeatedly warned that the implementation of the economic sanctions, imposed on June 30 last year, are seriously threatening the lives and health of civilians in Yugoslavia and paralysing the normal functioning of hospitals and the pharmaceutical industry.

Bosnia-Herzegovina: UN Says Srebrenica's Waterworks 'Destroyed by Explosions'

*AU2106134793 Paris AFP in English
1314 GMT 21 Jun 93*

[Text] Sarajevo, June 21 (AFP)—The besieged Moslem enclave of Srebrenica in eastern Bosnia-Herzegovina is facing the prospect of trying to survive the summer months without water, following the destruction of its water treatment plant, a UN forces spokesman said on Monday [21 June].

The enclave with 10,000 to 15,000 people is the first of six "safe areas" declared by the United Nations.

After weeks of wrangling with the besieging Serb forces, UN Protection Force (UNPROFOR) units got into Srebrenica only to discover the waterworks had been destroyed by explosions, the spokesman said. It was not immediately clear if the blasts were set off deliberately, he added.

The plant was beyond repair, and it would take at least two months to restore another treatment system which had been out of use for 10 years, the UNPROFOR spokesman said.

Residents were running the gauntlet of continued fighting to look for water in the nearby hills. The French sector of the medical charity Medecins Sans Frontieres has set up emergency reservoirs a few kilometres from Srebrenica to deliver water by tanker truck.

Bosnia-Herzegovina: Sarajevo Hunger Strike Continues, Appeal for Aid

AU0207162693 Sarajevo Radio Bosnia-Herzegovina Network in Serbo-Croatian 1300 GMT 2 Jul 93

[Midhat Kulender report from Sarajevo]

[Text] [Kulender] We do not regard this as a desperate move. We want to draw the attention of the world and the international institutions to the fact that Sarajevo is on the edge of an abyss, and that help, even at the last moment, can save tens of thousands of lives, particularly children, the old, and the weak, say the members of the Sarajevo City Council.

Mr. Muhamed Kresevljakovic, mayor of the city of Sarajevo, says:

[Begin Kresevljakovic recording] I think, and it is not only myself, but all of us here, I must admit that we feel worse

than when we [words indistinct], hunger takes its toll, particularly as (?we have undertaken this) from a rather rich society. The point is that we have all, together with the citizens, been on a hunger strike for over a year. We have (?medical examinations), bulletins, some of us have started losing weight, a kilo or two, and some of us have had higher blood pressure. We have no possibility for [word indistinct] analysis, for there are no means.

We hope that we will endure for a long time, at least, as far as the moral side of it is concerned. We are as determined as we were at the start. We are aware that our demands will probably not be met, since the international public (?did not react) even while 200,000 people were being killed, when there were mass (?events) like the [massacre in bread queue] Vase Miskina one, and so on. However, I have a feeling that, even though the representatives of the UNHCR have not visited us yet, that something can be [word indistinct], certain small progress [word indistinct]. We will see in the coming days what will happen. If we succeed, we will be extremely happy, as this strike is not aimed so much at the [word indistinct]. It is more important if we manage to stir the international public, since solidarity between cities is very well known in the world. One of our aims is just that. We have sent letters to Olympic cities [Sarajevo hosted XIV Winter Olympics], to the citizens of the world, cities in the world that have spoken for us before, and if we manage to succeed in getting the aid that they collect to arrive here, not through the UNHCR but through [word indistinct], I think that we would solve the problems here in Sarajevo over the long term. [end recording]

[Kulender] And you can judge for yourself, the members of the Sarajevo City Council say, how minimal the demands that we have set when going on hunger strike really are. All we want is 350 grams of food daily per citizen, which is 50 percent of the humanitarian aid that the UNHCR has set as a minimum, and 30 percent of the necessary amount of drinking water for the city, and the basic minimum amount of electricity.

Bosnia-Herzegovina: WHO Chief Warns of Impending 'Catastrophe' in Sarajevo

AU0907093193 Sarajevo Radio Bosnia-Herzegovina Network in Serbo-Croatian 0800 GMT 9 Jul 93

[Text] The World Health Organization has appealed to UN Secretary General Boutros Ghali to take urgent measures to deliver medication and fuel to Bosnia-Herzegovina, BBC reports.

Dr. Hirashi Nakajima [name as heard], director general of this organization, stated in Geneva that the circumstances in Sarajevo and other besieged towns have deteriorated drastically. He warned that if something is not done, a catastrophe unprecedented in Europe since World War II could take place.

Bosnia-Herzegovina: Sarajevo Council Discusses 'Deteriorating' Health Situation

AU1307162493 Sarajevo Radio Bosnia-Herzegovina Network in Serbo-Croatian 1300 GMT 13 Jul 93

[Text] A session of the Sarajevo City Council was held today in Sarajevo in which the alarming epidemiological situation in the city was discussed. Mediha Colo reports.

[Begin Colo recording] The deteriorating epidemiological and hygienic situation in the city was discussed at the session. The spreading of contagious diseases like enterocolitis, viral hepatitis, and dysentery is becoming epidemic. The majority of those suffering from these diseases have been registered in Novi Grad. An appeal was again sent out the citizens not to drink the water that they get from hand pumps. The Council discussed the closing down of restaurants [ugostiteljski objekat] in the city. So far 49 restaurants have been sealed off. Criminal charges will be brought against owners who force open the seals, and a prison sentence of up to a year has been envisaged.

It was said today that the security situation in the city has also deteriorated because of the irresponsible behavior of individuals. Just in the last four days grenades [kasikara] were thrown in four locations in the city.

CHILE

Cuba's Lage Upholds Single-Party Political System

PY0906035993 Santiago *Televisión Nacional de Chile Imagen Internacional* in Spanish 0100 GMT 9 Jun 93

[Text] Carlos Lage, vice president of the Cuban Council of State, today met with Interior Minister Enrique Krauss. The high-ranking Cuban leader referred to his country's interest in broadening its economic relations with Chile.

As is well known, Cuba is currently facing critical times due to the U.S. blockade and the collapse of world socialism. In addition to this it is currently enduring a disease affecting some 25,000 Cubans, who are going blind.

Our analyst Raul Zor held an exclusive interview with the Cuban vice president:

[Begin recording] **Zor:** For decades now the Cuban Government has endured a tight economic blockade imposed by the United States. In the past Cuban Government authorities have charged that certain diseases, such as swine fever, which wiped out a large number of pig farms, had been transported to Cuba by CIA agents.

We asked Cuban Vice President Carlos Lage whether he thought that foreign agents were responsible for this recent plague, known as optic neuritis.

Lage: In our country we have also experienced some other very strange diseases affecting animals and human beings. In some cases we have been able to prove, by decoding CIA documents, that these plagues were brought into the country by our enemy, the United States. Our country has therefore already faced situations of this nature, and the possibility exists. However, we must point out that we have no reason to contemplate or even think that the current U.S. Government is responsible for this disease. The idea has not crossed our minds.

Zor: Do you think you can overcome this blockade and capture enough foreign investments to overcome the situation you are currently enduring?

Lage: We think this blockade is so unjust, so illegal, that the world could not admit that it be maintained forever. I believe that the revolution is gradually being understood.

Zor: Lage, who is in charge of preaching the Cuban economic strategy, does not believe that the problems have prompted the Cuban people to alter their loyalty to the government. In this regard we asked him if he didn't feel that having obtained 93 percent of the votes in the recent elections was rather exaggerated.

Lage: This is perfectly understandable. It is not only understandable, but also true. You only need to have lived in Cuba, or to have spent 48 hours there, to realize that not only was there no fraud in our country, but also that the possibility of fraud does not exist either in the minds of Electoral Court members or in that of any Cuban. Not one

single Cuban—and I invite you to see for yourself—believes there was fraud in those elections.

Zor: This means that in Cuba only 7 percent are dissatisfied.

Lage: Probably less, in the sense that the 7 percent reflects the total number of people who did not participate, the annulled and blank votes.

Zor: Fidel Castro said that a multiparty system was nonsense. However, in most countries of the world democracy is based on various political currents organized in political parties. Do you believe a single-party system has any future?

Lage: I believe the world must understand that there can be more than one form of democracy. Democracy is representative, and there is no reason why a multiparty system should be the only form of democracy. We believe that the single-party system is best for our country. We would need a bit more time to discuss the subject. In Cuba the party is not an electoral party, the political party does not run for elections; the people propose themselves directly for the National Assembly. In other words, our electoral system does not require the intervention of political parties.

CUBA

Castro Meets With Scientific Organization Representatives

FL2005202593 Havana *Radio Rebelde Network* in Spanish 2300 GMT 19 May 93

[Text] Cuban President Fidel Castro held a meeting with the delegations of international health organizations who are visiting our country to learn from and cooperate with the research on the epidemic neuropathy.

Today, GRANMA newspaper published on its first page an extensive article on the topic. It highlighted that Fidel held meetings with the delegations of WHO, Pan American Health Organization [PAHO], and the Orbis Project, as well as with members of the Cuban team coordinating the work to confront the epidemic neuropathy. Also present at the meeting were outstanding scientists from the six subgroups investigating the nutritional, toxic, biologic, clinical, therapeutic, and epidemiologic aspects of this illness.

Today, another three eminent scientists arrived in Cuba to join the other five outstanding specialists from WHO and the three from the Orbis Project. They will all be carrying out an extensive work program in Cuba.

In the meeting held at the Genetics Engineering and Biotechnology Center, the visitors received extensive information on the characteristics of the neuropathy, its various manifestations, and its appearance and spread in our country in a pattern unprecedented in international experience.

The visitors were shown the results on research on the population's nutritional levels, which are normal with the exception of a significant decrease in vitamin B1. Biological research has confirmed the isolation of an enterovirus of the Coxsackie type in the brain and spinal fluid of several patients.

The scientists noted that they have not been able to establish any element of contagion and that the geographic dissemination of the epidemic does not correspond to the pattern for this kind of virus.

The scientists were also informed of the various treatments given in hospitals and the differing levels of recovery observed in the patients. Dr. Guillermo Llanos, who heads the group from WHO and PAHO, pointed out that the Cubans are producing excellent research.

Fidel thanked WHO and the Orbis Project for the interest they have shown. Fidel said: We expect to receive ideas and suggestions on new research. Castro added: We hope these meetings will produce a cooperation program.

On the other hand, Public Health Minister Dr. Julio Teja expressed Cuba's satisfaction and appreciation for their response to our call for international cooperation to confront the epidemic. He added Cuba has not skimped on resources to fight the illness, despite the difficult economic situation resulting from the U.S. blockade, which was reinforced by the Torricelli Law, the abrupt loss of fair trade with the former Soviet Union and the former socialist bloc, and the effects of the so-called storm of the century, which caused damages conservatively estimated at \$1 billion.

Teja added that we have not skimped on expanding the network of laboratories with multiple equipment developed in our country such as the (Neuronic), (Neurocid), and (Neuropac) costing more than \$10 million on the international market. It was also the Cuban Government's decision, confronted with an illness that behaves in such an anomalous manner, to hospitalize for in-patient treatment anyone categorized as acute or moderate; an additional 20,000 hospital beds were readied, which represents an increase of 30 percent in hospital beds in our country.

A therapeutic vitamin treatment with a high dosage of B-complex was established for those who are sick; the rest of the population receives a supplemental vitamin treatment with B-complex, folic acid, and vitamin A as a preventive measure. This represented an expense that exceeded \$17 million. The assembly of 32 hyperbaric chambers and the construction of other equipment for treatment and rehabilitation of the patients became part of the fight against the epidemic neuropathy at an additional cost of \$5 million.

The GRANMA article concludes that all data from the research that has been carried out was made available to the international scientists visiting our country and will be beneficial to us and, eventually, all mankind.

Health Delegate to Caracas on 'Laboratory Virus' Theory

*FL2605233093 Havana Radio Reloj Network
in Spanish 1933 GMT 26 May 93*

[Text] In Caracas, members of the health committees of Cuba's legislature and Venezuela's senate have exchanged experiences on the two countries' hospital and health-care systems. Dr. Carlos Dotres, member of the Permanent Health Committee of the National Assembly of the People's Government, reported on the benefits of the [illness] prevention system in our country, based on the Family Doctor Program. Dotres said Cuba's population gets free medical care under the hospital system, even if a costly operation is involved, and that over 86 percent of the population is attended to by the family doctors.

The chairman and the deputy head of the Venezuelan senate's health committee, (Rafael Caravano) and (Rafael Casal) respectively, attended the meeting with the Cuban deputies.

Dr. Dotres told the Venezuelan senators that the epidemic neuropathy affecting our country appears to have multiple causes. The physician said it is not a contagious disease, nor is it due to nutritional problems, although some of the people affected have been found to have vitamin B-1 deficiencies. Dotres said [researchers] have already managed to isolate, in certain patients, a virus found in the encephalorachidian fluid—a virus which, judging by the characteristics of the epidemic, could possibly be a laboratory virus.

Dr. Dotres said that if poor nutrition were the cause of the epidemic neuropathy, the disease would be present in many countries of Latin America and Africa, where hunger and malnutrition do indeed exist.

Health Official—Debt, Poverty Prevent Better Health

*PY2705224293 Madrid EFE in Spanish
1600 GMT 27 May 93*

[Excerpts] Brasilia, 27 May (EFE)—Jorge Victor Antelo Perez, Cuba's first vice minister for public health, stated today that the external debt and poverty are the main stumbling blocks for the improvement of health conditions in Latin America.

Antelo Perez, who heads the Cuban delegation to a conference being held by the 21 Ibero-American health ministries over the last three days in Brasilia which ends today, said: "Once we solve these problems, health conditions will improve."

He pointed out that Latin American governments allocate resources to pay off their external debt—which totals \$426 billion—and that those resources should be appropriated for health care. [passage omitted]

Antelo Perez said that the most worrisome health problem in Cuba is epidemic neuropathy, the etiology of which has not yet been detected, though local health services are

conducting research on this disease with the support of the WHO, PAHO [Pan-American Health Organization], and Orbis, an American institute.

This epidemic may be caused by a toxic agent, either a nutritional or a viral one, although Antelo Perez stated that "we still cannot say whether it is caused by one or a combination of the three." He further noted that there have been 26,000 confirmed cases, though no fatal cases have been reported.

The symptoms of this disease are a loss of sensitivity, problems in walking and urinating, and impaired vision.

Antelo Perez ruled out that the epidemic might be transmitted to other Latin American countries and that it was caused by the stress suffered by the Cuban population due to the lack of means. He stressed that "there are worse stresses in other countries, such as Yugoslavia and Somalia, where there is no such epidemic."

Medical Authority Interviewed on Health Care Goals

FL0106164193

[Editorial Report] Havana Radio Rebelde Network in Spanish at 2345 GMT on 31 May carries the "Special Topic" section on the Exclusive program. Reporter Felix Fernando Garrido interviews Juan Vela Valdez, rector of the Higher Institute of Medical Sciences, on the goals of the institute.

Garrido begins by pointing out that between 1959 and 1992, 49,854 medical doctors have graduated in Cuba. Vela notes that the four Higher Institutes of Medical Sciences in the provinces are responsible for the training of medical personnel.

Garrido adds that despite the blockade and the many limitations of the special period, Cuba has one doctor for every 200 inhabitants. In Havana City Province, there is approximately one doctor for every 125 inhabitants. Garrido notes that this represents great development in the training of health care specialists.

Vela goes on to say that today there are 46,860 doctors in Cuba, which is 43.3 doctors for every 100,000 people; one doctor for every 231 people; 8,087 dentists, which is one dentist for every 1,343 people; and 73,000 nurses, of whom more than 5,400 are registered [licenciado]. Vela adds that the main goal of the personnel is to promote health and prevent disease.

Garrido concludes by saying that in 1992, the budget allocated to health care in Cuba was approximately 95 pesos per person.

Cooperation Discussed With Bolivian Health Officials

FL0206145793 Havana Radio Progreso Network in Spanish 1100 GMT 2 Jun 93

[Text] Jorge Antelo, Cuban first vice minister of Public Health, met with his Bolivian counterpart, Guillermo

Cuentas, in La Paz to discuss bilateral cooperation in terms of what has been accomplished so far and the possibilities for new means of cooperation. Last night, Antelo also met with officials of the Bolivian Institute of Social Security.

Since his arrival in Bolivia on 28 May, Antelo has met with Bolivian Health Minister Carlos Dabdoub; spoke at a seminar for public health officials on decentralization and the Cuban people's participation in that area; and has held a news conference. He spoke of the massive vaccination campaign being carried out by the Cuban Ministry of Public Health through the Committee for the Defense of the Revolution and the current scientific battle against optic neuritis, in which Cuba is receiving help from international health organizations.

Santiago Inaugurates Epidemiology Research Laboratory

FL0806222893 Havana Radio Reloj Network in Spanish 1951 GMT 8 Jun 93

[Text] The provincial epidemiology research laboratory for the massive and simultaneous study of leprosy, AIDS, and hepatitis was inaugurated today in Santiago de Cuba. The (Zuma) is the main equipment installed in the laboratory. This third system of its type in Santiago de Cuba was assembled at the (?immunology testing) center. To date, 93 of these modern computerized systems are operating in Cuba and approximately 90 are in use in Europe, Asia, Africa, and Latin America.

During the inauguration of the epidemiology research laboratory, Esteban Lazo, first secretary of the Communist Party of Cuba for Santiago de Cuba Province, and Culture Minister Armando Hart expressed interest in other capabilities of the (Zuma) equipment, such as detecting congenital malformations and allergies.

Robaina, Diplomats Tour Pharmaceutical Industry Plants

FL0806181693 Havana Radio Rebelde Network in Spanish 1700 GMT 8 Jun 93

[Excerpts] Accompanied by representatives of the diplomatic corps, Cuban Foreign Minister Roberto Robaina today toured pharmaceutical industry sites in the capital. Here is Gisela Bel Heredia with the details.

[Bel] As part of the information received during a tour made in the company of Foreign Minister Roberto Robaina, the diplomatic corps accredited in Cuba today learned about all our country's achievements in developing the pharmaceutical industry. Addressing the diplomats, Ministry of Public Health [Minsap] Vice Minister (Jose Ignacio Goicochea Bofil) said Cuba is one of the few countries in the world where the production of medicines and other medical articles lies within, is part of, and belongs to the health care system itself. (passage omitted consisting of recorded statements by (Goicochea) with poor audio quality and indistinct portions)

The tour began (?at) Finished Forms Plant No. 1, which produces solid forms—tablets—and is at present producing the vitamin complex being distributed to the population as part of the measures to counter the neuropathy epidemic. The plant that produces plastic flasks for the pharmaceutical industry was also visited; as were Plant No. 3, which also makes tablets; and other plants under construction in nearby areas as part of investments in the pharmaceutical industry, which already has 60 factories in Cuba.

Havana on Lage in Chile, Italian Thermal Waters Meeting

*FL0806154493 Havana Radio Rebelde Network
in Spanish 0900 GMT 8 Jun 93*

[Text] Carlos Lage, vice president of the Cuban Council of State, met just a few hours ago with Chilean Planning and Cooperation Minister Sergio Molina. Several international news agencies have reported that the investment and social-policy experiences of the two countries were discussed at that meeting. Molina expressed interest in Cuba's education and health-care experience, and noted Cuba's successes in the health sphere, including achievement of the lowest mortality rate [as heard] in Latin America and the Caribbean.

Lage is on a work visit to Chile at the invitation of the Chilean government's secretary general, Enrique Correa.

Meanwhile, Jose Montane Oropesa [first name as heard], coordinator of Cuba's national waters and hydrotherapy group, has toured several hot springs in the city of Montecatini, Tuscany Province, Italy. Montane also participated in the 32d international symposium of the Italian association of thermal waters technicians, in the province of [name indistinct], during which (?Cuba's) experience in developing and preserving that sphere was reported on. Montane announced that the next such gathering will be in Havana in December.

Hospital Ward Created for Children With Optic Neuritis

*FL0307162793 Havana Radio Rebelde Network
in Spanish 1155 GMT 3 Jul 93*

[Excerpt] During the fifth provincial pediatrics meeting, which began on 2 July at the Manuel Marquez Hospital in Havana, it was stressed that fewer than 80 children have been diagnosed with epidemic neuropathy in Cuba. Most of the children have the peripheral form of this illness and are being treated with a balanced diet and vitamins. The few cases being seen are being hospitalized in order to provide the correct therapy before returning home. At the Marianao Pediatric Hospital, a ward for children with epidemic neuropathy has been temporarily set up.

Pediatrician Joaquin Pascual pointed out that the vitamins being distributed to the population have significantly reduced the cases of epidemic neuropathy. The vitamins do not have any aftereffects, nor has it been proven that there are toxic elements in the food being distributed to children which might cause the illness. [passage omitted]

Economic Crisis Produces Shortage of Medicines

*PA0907042193 Havana Radio Havana Cuba in Spanish
0000 GMT 9 Jul 93*

[Roberto Morejon commentary]

[Text] The economic crisis Cuba is enduring, a crisis produced by external factors, is having effects on the supply of food, consumer goods, technology, raw material, spare parts, and pharmaceutical products.

Cuba, whose health index is in many respects equal to or better than those of developed nations, reached the kind of development that allowed the island to produce 80 percent of its pharmaceutical needs. But as a result of the collapse of its relations with the former Socialist camp, especially with the Soviet Union, the possibilities of acquiring raw material necessary for the production of pharmaceutical items narrowed.

If to this we add the severe U.S. blockade, made more stringent by the so-called Torricelli Law, we can conceive of the dimension of the obstacles Cuba has to face to find what it needs in other markets.

Right now the country cannot buy 300 medical products to sell them to the public. In March 1992 this was true of 230 medical products.

Since the Cuban Government must dedicate two-thirds of its revenues to purchase oil, it cannot allocate foreign exchange to cover the shortage in medicines.

In 1989 Cuban authorities allocated 132 million pesos—the same amount in dollars—to import pharmaceutical products and raw material to produce medicine locally. But as a result of annual reductions, during the first six months of 1993 the authorities allocated only 16 million pesos to such imports.

These figures do not include the state's urgent expenditures to secure in only 35 days the components of the vitamin compound that for the past three months has been given free of charge to all Cubans to mitigate the neuropathy epidemic.

The Cuban Health Ministry foresees a slight improvement in the availability of medicine for the remainder of the year, although medicine urgently needed for grave diseases has always been guaranteed.

Now more than ever, Cubans are resorting to medicinal plants whose virtues have been scientifically demonstrated, are studying variants to replace imported medicine, and are rationally distributing donations from governments, international organizations, and private citizens.

All this helps mitigate the serious medicine problem.

HONDURAS

President Callejas Gives News Conference

PA2606175493 Tegucigalpa *Voz de Honduras* Network
in Spanish 1830 GMT 24 Jun 93

[News conference with President Rafael Leonardo Callejas by unidentified reporters at the Toncontín International Airport; date not given—live or recorded]

[Excerpt] **Reporter:** What about the 25 tons of toxic waste that have just entered Honduras?

Callejas: I know nothing about that.

Reporter: A television station reported that Greenpeace has denounced the fact that a vessel will arrive in Honduras with 25 tons of old tires to be used for combustion purposes at a Honduran cement company.

Callejas: The government signed an agreement to prevent toxic products from entering the country. There is no reason why products that affect the environment should be allowed into Honduras. I will contact the National Environmental Commission and order them to take action if the report you mentioned is confirmed. As a nation, we are convinced that things like that should not happen.

There is some debate on whether industries that operate high-temperature furnaces can use those sort of products, but until the issue is properly regulated by organizations such as the Environmental Protection Agency, it would be illogical for the country to accept products that will contaminate our environment. We will enforce agreements that contain administrative policies issued by the executive branch that have been in effect for a long time.

Reporter: Mr. President, can you guarantee that the products will be rejected given in light of the agreement signed by the Central American presidents at the Panama summit in December?

Callejas: Of course, the government's environmental policy is not to allow toxic products into the country. Thus we should expect nothing other than compliance with that policy.

Reporter: The Nicaraguan Government protested vigorously against your meeting with Cesar Gaviria in San Andres Island. Nicaragua claimed the meeting violated regional agreements as well as agreements between Honduras and Nicaragua. Nicaragua has laid claim to San Andres Island.

Callejas: I am not aware of the Nicaraguan Government's protest. I will have to talk to the Foreign Ministry. Historically we have respected all international treaties. This was the second time I visited San Andres as Central American [as heard] to meet with the Colombian president. You might recall the Central American presidents and a Nicaraguan representative met there to discuss bananas and coffee nearly two years ago.

Reporter: Did you plan to take this trip with your party's candidate Osvaldo Ramos Soto, or did you travel together by chance two days ago?

Callejas: Osvaldo Ramos Soto was going to Washington and New York, and I was going to Miami to meet my wife.

Reporter: President, the problem is that Nicaragua demands...[pauses] has laid claim to San Andres. In fact, Commander Daniel Ortega said your presence in San Andres was absurd.

Callejas: I will talk to the Foreign Ministry to issue an explanation on the matter if warranted.

Reporter: President Callejas, the number of cholera cases has increased but has not yet reached epidemic proportions. Do you have any information on that? What immediate measures will be taken in addition to those adopted by the Public Health Ministry, which have apparently failed to achieve results?

Callejas: Since the first unfortunate case was reported in Honduras, the death rate among cholera patients has increased with the largest number of cases occurring during the rainy season. I want to reassert the following: You fight cholera on an individual basis. You must wash your hands with soap and drink boiled water. There is no other way to do it. We will summon the commission in charge of the fight against cholera to resume its publicity campaign emphasizing the need for personal hygiene. Otherwise there will be more cholera cases in the country. Of course, the government has sponsored sanitation programs, latrine and sewer construction, and water treatment facility improvements, but the cholera issue is up to every one of us. Wash your hands with soap before each meal, boil your drinking water, and remember that cholera is transmitted through the mouth. You are the only one who can stop it.

URUGUAY

Government To Donate Medicines, Cleaning Products to Cuba

PY2207190093 Montevideo *Radio El Espectador*
Network in Spanish 0930 GMT 22 Jul 93

[Text] The Uruguayan Government will, in the next few days, donate medicines and cleaning products to the Cuban Government. The United Nations supports the request by Fidel Castro's government.

Health Minister Guillermo Garcia Costa said the donation, which will not surpass \$1,000, will be paid from Health Ministry funds. The date on which the donation will be made has yet to be confirmed. He added that even though the Cuban Government asked, experts will not be sent to Cuba. The donation will help to control the endemic neuropathy outbreak that is affecting more than 20,000 Cubans. In its most acute stage this illness causes blindness.

A Cuban Embassy official confirmed the donation request, adding that no official answer has yet been received. Minister Garcia Costa said that in answer to the Cuban Embassy request—which has the support of the United Nations—we are preparing vitamins, cleaning products, floor detergents, brooms and brushes, soap, and other articles.

AFGHANISTAN

Field Hospital Opened in Kabul; Increase in Cholera Cases

LD2707211493 Kabul Radio Afghanistan Network in Pashto 1530 GMT 27 Jul 93

[Excerpts] A field hospital for contagious diseases was opened today by esteemed [Health Minister] Seyyed Mohammad Amin Fatemi in the compound of the contagious diseases hospital [in Kabul]. This hospital was set up to deal with the problems caused by the increase in the number of people affected by cholera. [passage omitted]

A Health Ministry source added that 4,519 people have attended the contagious diseases hospital since 16 June for treatment.

Refugees Return From Afghanistan; Typhoid Epidemic Spreads

LD2807171793 Dushanbe Radio Dushanbe Network in Tajik 0300 GMT 28 Jul 93

[Text] Eighteen more of our compatriots have returned back home through the Nizhniy Pyanj checkpoint from the Islamic State of Afghanistan. This time the crossing group was not large because of the typhoid epidemic in the neighboring country. Infectious intestinal diseases have been registered in the camps of the Tajik refugees. Now the passage of our compatriots through the Nizhniy Pyanj checkpoint will take place not twice a week as before but once. This is connected with the outbreak of cholera in the south of our republic, and our compatriots who are returning back from Afghanistan staying five days in (?health check) camps will be thoroughly examined by the medical employees, will undergo tests, and only after negative results will be back to their homes.

ALGERIA

Needed Medical Drugs Found Stockpiled at Port

93WE0417A Algiers HEBDO LIBERE in French 12-18 May 93 p 9

[Article by Aek Hammouche: "Medical Drugs: the Containers of Shame"]

[Text] Close to 1,000 tonnes of medical drugs are sitting at the port of Algiers.

Medicines are a never-ending subject of conversation. At a time when pharmacists are flirting daily with shortages and when patients are expressing their despair at lacking everything, the port of Algiers is awash in medical drugs stored in containers. So for several weeks about 500 tonnes of drugs purchased by pharmacists, 350 acquired by COPHARM [expansion not given], and several dozen tonnes imported by LPA [expansion not given] have been stockpiled for highly debatable reasons: in the case of the pharmacists, for example, the problem is one of who their bankers are. In the case of LPA, the freezing of contract conditions is being mentioned, whereas in the case of COPHARM it is said to be a question of prices.

What an astonishing country Algeria is: the premier institution that logically ought to be involved first in this drug problem, the Ministry of Health, as it happens, is out of the picture; at present only the Ministry of Commerce, the Bank of Algeria, and the primary banks are having their say on the drugs! Nowhere else in the world does this system exist. In fact, everything seems to be done deliberately to see to it that the drug problem does not get dealt with efficiently. Dozens of Algerian women and men die each day because they cannot find the drugs they sorely need whereas at the port of Algiers hundreds of tonnes only await a simple decision before they can be marketed. Whatever criticisms may be made of the pharmacists, COPHARM, and LPA, common sense, or, better, the most basic human feeling cries out to see these products sold as the suits pitting the three agencies against the government are resolved. Those officials who are at the root of this scandalous blockade will have the terrible despair of those patients who have lost faith in their country on their consciences.

Report Shows Medical Situation 'Deteriorating'

93WE0417B Algiers EL WATAN in French 13 May 93 p 1

[Article by Djillali Haddjadj: "The Health System: 1991 Statistics"]

[Text] Some time ago a 139-page document entitled "Statistiques, Annee 1991" [Statistics for the Year 1991] was issued by the Ministry of Health. Despite the limits of this "statistical work," a reading of the work generally confirms the very clear deterioration of the health sector in recent years and the "loss of speed" in Algerians' health.

All the indicators are that for 1992 the drop continued and that for 1993 things will not be better.

A presentation of the health sector through its activities in the year 1991: such was the aim of the Health Ministry's document.

The editors make an initial observation: the reliability of the information contained [in the document] "still remains debatable." A second observation: with regard to health activities properly speaking, "all indicators deteriorated": there was a drop in activities and a low yield from the different structures and establishments. "For most services, we find an increase in the mortality rate and 273 hospitals are operating without any specialist!"

At the same time budgets for the health and hospital sectors witnessed major growth. "Salaries for all employees rose by 72 percent between 1989 and 1991." Regarding health workers, the staffs of practitioners at hospitals connected with universities continue to drop: more to set up in private practice than to retire.

From 1989 to 1991, a three-year period, more than 400 Algerian specialists set up in private practice, while at the same time close to 350 foreign specialists left public [health] institutions in the interior of the country!

During the same period, 1989 to 1991, more than 1,000 new private pharmacies opened!

As of 31 December 1991, 22 hospitals in the interior of the country were operating without any specialist! (For most of the 240 spanking new beds!, "imported" during the 1980's, ready for use.) [sentence as published] There are more Algerian specialist physicians in private practice than there are in the [public] sector (1,424 versus 1,365). Medical support staff grew by 10 percent and there were more than 20,000 students in medical school as of 31 December 1991. (Will they find a job when their education is finished?)

Indicators Falling

The overall state of activities shows that all indicators are falling when compared with 1990, while at the same time there was a major increase in the number of deaths: close to 6,000 more deaths than in 1990 or a total of 28,706, 29.4 percent alone of which (8,471) were pediatric.

In 1991 the very significant growth in the budget allocated to the health sector (+50 percent) did not prevent a deterioration of all indicators (in fact most of that increase, if not all of it, was absorbed by wage costs).

In the area of hemodialysis, of 347 "artificial kidneys," 91 had broken down as of 31 December 1991 and there were 184 deaths for 2,329 patients treated. With regard to hospital admissions, 38.4 percent were in gynecology and obstetrics.

The median national occupancy rate in public sector hospitals (excluding CHU [University Hospital Center] and special hospitals) went from 49.4 percent in 1990 to 44.1 percent in 1991 (more than one bed out of two is not occupied or not used), which in rough terms could translate as: one employee out of two is paid to do nothing.

With regard to infrastructure, as of 31 December 1991 the number of beds was 57,702, of which 706 were in 60 private maternity hospitals. Compared with 1990, there was an increase of 1,345 beds, more than half of which were accounted for by the 22 new public maternity hospitals. So we learn that there is a program being implemented, which at the same date consisted of: 24 hospitals (3,220 beds), 60 polyclinics, 213 health centers, 7 urban maternity hospitals (490 beds), 12 rural maternity hospitals (122 beds), and 14 wilaya medical laboratories.

It should be noted, however, that many of these projects are part of "construction projects that will take a very long time to complete" (sometimes more than 10 years!).

As for equipment, the breakdown rate continued to rise in 1991 (X-ray equipment, dentist's chairs, exploratory equipment, scanners, etc.).

The car pool did not escape this "paralysis," upwards of 40 percent being out of commission for certain health sectors.

This statistical document for the year 1991 provides no information on the activity of private sector institutions,

particularly medical practices and private maternity hospitals. The Social Security [office] may be better able to supply these data.

Unfortunately 1992 was more difficult than 1991: we must expect a greater deterioration of the indicators cited in this document, and there is no positive sign for 1993.

The first figures that have reached us regarding prevention confirm how little the health system is responding, the stepped up deterioration of the quality of life, and a forceful statement of the clear trend in economic conditions for more and more Algerians.

Hello Homeopathy!

The Money and Credit Council is concerned about the health of Algerians. It has just issued an announcement agreeing to the creation of an Algerian-Belgian company, which would set up a laboratory to manufacture homeopathic and phytotherapeutic products.

Homeopathy was invented in the 18th century by Dr. Hahnemann, a German doctor, and is based on two principles. "The law of similitude" is defined as, "substances that produce the symptoms of a disease when administered in high doses can cure the same illness if given in very small doses" and the second principle is the "law of the infinitesimal" that states, "products used in homeopathic therapy are diluted to such low concentrations that they do not show up in chemical analysis."

Authorizing this project means authorizing the practice of homeopathy. However there are many questions: did the Ministry of Health and Population give its endorsement?

Has the National Medical Nomenclature Commission been informed and will it set up a subcommission for homeopathic products internally? Will Social Security reimburse prescriptions written by homeopaths?

If the government sees in [homeopathy] an efficient and less costly way of curing "Algerians' woes," then hello homeopathy!

But let's be serious: what is this new hoax really? Or is this yet another door open to waste and frittering away lines of foreign credit? Is there a Health Ministry in [the house]?

Health Care Found Inferior in South 93AF0427A Algiers EL WATAN in French 23 May 93 p 12

[Text] Enormous disparities in health conditions exist between northern and southern Algeria, according to a number of indicators.

In southern health districts, the mortality rate in relation to the number of admissions ranges from 16.42 per 1,000 in Ouargla to 37.35 per 1,000 in Tamanrasset. In the health districts of the university cities of the north, mortality rates do not exceed 10 per 1,000. The wilayat [governorates] of Laghouat, Biskra, and Bechar report neonatal mortality rates of more than 20 per 1,000 whereas the national average is 8.6 per 1,000.

The maternal mortality rate (the number of mothers who die in childbirth) is greater than 1 per 1,000 in the wilayat of Ghardaia, El-Oued, Tamanrasset (8.3 per 1,000) and Adrar (2.8 per 1,000), but it is only 0.1 per 1,000 (one maternal death for every 10,000 women who give birth) in the wilayah [governorate] of Skikda. The national average for all health districts is 0.5 per thousand.

These figures are drawn from a 1991 statistical report issued by the Ministry of Health.

As of 31 December 1991, the 10 wilayat of the south had only 111 Algerian specialists (public and private sectors combined) and 80 of them were practicing in the wilayah of Ouargla, Biskra, and Ghardaia.

As of the same date, the regions of the south had a population of 2.3 million inhabitants. The wilayah of Bejaia had 100 specialists for a population of 781,000 inhabitants.

The south also lagged behind the north in the number of health care facilities under construction at that time. The south had only five of the 24 hospitals being built in Algeria, one urban maternity center out of seven, four rural maternity centers out of 12 (three of them in Ouargla), two hospital clinics out of 26, two health centers out of 42, and two laboratories out of 41.

In disease prevention, the state of affairs in the south appears disastrous when compared with the situation in the north, which is already less than perfect.

According to epidemiological data gathered by the NSP [expansion not given] in 1991, typhoid fever was more prevalent in the wilayah of Biskra than in any other, and the wilayah of Ghardaia should also be mentioned. The incidence of viral hepatitis had exceeded 50 cases per 100,000 inhabitants in Biskra and Illizi.

The highest incidence of dysentery was reported in Adrar, Ghardaia, Biskra, Tamanrasset, and Bechar, in relation to the national data. In 1991, 116 (or 88 percent) of the 131 cases of cholera in Algeria were reported in Adrar, in the Reggane health district.

The incidence of measles reported by the southern regions in 1991 was considered "unusually high" by the specialists of the NSP. It was three times greater than the level reported in 1990. In Tamanrasset alone, 328 cases were reported. That is 97 cases for ever 100,000 inhabitants as compared with the national average of 22.23—a ratio of one to 15! [sentence as published] That same year, three out of a total of four suspected cases of poliomyelitis occurred in El-Oued.

Among the diseases transmitted to humans by other animals, brucella continued to spread into the south, invading the wilayah of the High Plateau area. (The southern wilayah of Biskra and Ghardaia were the hardest hit.)

Cutaneous leishmaniasis, however, is known only in the south where it was spreading at a dangerous rate. In 1991,

the incidence in Biskra was 274.27 cases per 100,000 inhabitants, as compared with a national average of only 15.57.

Malaria appears to be disappearing from Illizi in the wilayah of Illizi (the Djanet health district), according to data gathered in 1992. The same is true of another focus of the disease in Ain Defla.

In 1992, the state of affairs was much the same. In addition, however, outbreaks of diphtheria occurred: Three cases were reported in Illizi in September 1992; two cases in Reggane in October 1992; and 11 cases in Tamanrasset in Adrar in November 1992. According to the REM [expansion not given] of the INSP [?National Public Health Institute], 11 cases of whooping cough were reported in Guerrara (wilayah of Ghardaia) in April 1992.

Unfortunately, scorpion stings continue to be the cause of numerous deaths in the south.

Clearly, the overall picture is rather grim and it calls for energetic measures. This has led national health officials to "decree" a special health plan for the south.

Drug Shortages; Dependency on Foreign Aid Noted

*93WE04704 Algiers EL WATAN in French
6 Jun 93 p 12*

[Text] The shortage of medicines, a temporary phenomenon in 1979 and 1987, has become a chronic problem since 1990. It is a source of anxiety to patients and their families and has led to a sense of helplessness among medical personnel. It has put some health programs (vaccinations and birth control) on hold and seriously disrupted the delivery of care. As a result, the public and medical professionals have lost faith in the government's ability to ensure individual and family health care.

Many factors have been cited to explain—and perhaps even to excuse—this state of affairs. Among them, the erosion of the dinar, the phasing in of reforms, inefficient state-run companies, waste.... Even the worldwide economic recession has been mentioned! But such explanations give an incomplete picture of the objective causes of this situation. The determining reason is the system's inability to institute a coherent plan that addresses the basic issues raised by the provision of medicines and medical-surgical supplies.

The present state of affairs is primarily characterized by Algeria's complete dependence on other countries for medications, consumables, medical-surgical supplies, and even raw materials for its own output, which accounts for a minute portion (about 15 percent) of the pharmaceuticals used by Algerians. The following factors have exacerbated already thinly stretched supplies of medicines.

The former Algerian Central Pharmacy (PAC) was restructured in accordance with the principles in vogue at the time (1982): the separation of production and marketing functions, and regionalization. The restructuring effort focused

essentially on organizational and administrative matters. No effort of consequence was made to address the issues of improving financial management and this would eventually have an effect on the newly created companies.

The advent of reforms in the health sector—particularly in the all-important area of medications—and the approaches used in the initial phase of implementing the reforms, triggered a highly detrimental process that stripped away the decisionmaking powers of the public health authorities. With the Council on Currency and Credit overseeing operations, national and foreign economic operators became the sole players. In concrete terms, this distancing resulted in the Health Ministry's exclusion from the process of supplying medicines and in the absence of even a functional relationship between national operators and the public health authorities.

In addition, wholesalers-distributors and foreign laboratories were awarded authorizations unilaterally by the Council on Currency and Credit, without expert advice from health or administration officials. This approach would have required a schedule of conditions but none was ever drawn up. In addition, given the lack of clear-cut criteria, the authorization of operators was handled on a case-by-case basis by the Council on Currency and Credit. This strategy of economic regulation by a financial mechanism proved to have drawbacks and these were supposedly corrected by the decision to freeze prices. However, the price freeze, along with losses due to the declining dinar and bills owed by health establishments, contributed to the "unbankability" of the Pharms [three companies in charge of medication] At the same time, other operators, considered to be bankable, were quietly determining price flexibility without prior approval.

Lines of credit made available to national operators by some countries (Italy, France, Spain), along with urgent orders necessitated by the scarcity, was an important factor in cost overruns. The credits were used at times to purchase nonessential products in the form of patent medicines rather than generics. One typical aspect of the loss of decisionmaking power by public officials was the blow inflicted on Algeria's developing pharmaceutical industry by the strangulation of raw material supplies to SAIDAL [expansion not given] and by surprising inertia in the handling of the New Pasteur Institute (NIPA) for which a substantial amount hard currency was made available. Paradoxically, public companies were encouraged enter into various joint venture projects with foreign concerns whose commitment to the health of the population was not always ascertained by the appropriate authorities.

Lax management of pharmaceuticals. Despite the efforts of public officials to ensure availability, it was found that the following mechanisms were effectively lacking:

- procedures to control the flow of medicines in accordance with priority health needs;
- monitoring by public agencies of the quantity and quality of all imported medicines, their geographic

distribution, the conditions under which they are made available by health departments and pharmacies, and their rational use. (Regulations often exist but are rarely followed.)

- procedures to keep health departments and prescribers regularly informed of available stocks of medicines.

In addition to administrative laxness, there is laxness within the medical profession itself that has resulted in a drift away from basic preparations such as syrups and serums of sugar, salt or bicarbonate. The above-mentioned institutional, economic, financial, administrative, and medical factors—in combination with incomprehensible price disparities and levels, fixed rates of social security reimbursement, the lack of input from prescribers in major decisions on medicines, the total absence of information and education on the basic problems concerning medicines—are a major cause of the justifiable discontent felt by citizens.

A radical revision of the thinking that has prevailed up to now is therefore needed.

New Cancer Treatment Center; Services Detailed 93WE0473A Algiers LIBERTE in French 6 Jun 93 p 9

[Unattributed article: "The Blida Cancer Treatment Center: Patient Treatment at Issue"; first paragraph is LIBERTE introduction]

[Text] *The Blida Cancer Treatment Center has come along at just the right time to relieve pressure on the capital's Pierre and Marie Curie Center.*

Built in the record time of two years by the Rural Building Company (EBR), this new multiservice building has a 173-bed capacity divided among the main surgery (48), medical oncology (48), and radiology (72) departments.

The units for radium therapy and patients with depressed immune systems, the seriously ill needing chemotherapy, share the remaining beds. The center's capacity will soon be increased when it regains a psychiatry wing, which shares the main building, which is currently being renovated and redesigned to accommodate 72 additional beds. Completely financed by the CNASAT [expansion not given], that is, at a cost of 9 billion, 600 million centimes [as published], the regional cancer treatment center is special in that it ensures those afflicted with this disease a treatment coordinated by a single medical team following a functional, homogeneous, and interdependent division of tasks specific to each department, from diagnostics to patient monitoring and follow-up. This organization of cancer patient treatment was selected with a view toward always avoiding difficult trips for patients who are already worn out by their disease. Two of these three main departments at the center are already operational. These are the radiography department, which began operations in May 1991, and surgery, which began one year later.

The third department, i.e., medical oncology, will start up soon according to center officials. In addition to various

intake services, outpatient consultations, and radiology, this center is equipped with an operating wing made of up three operating rooms two of which, completely equipped, are already operational and are used by three to four patients a day according to Professor Si-Ahmed, the head of the surgery department.

With regard to equipment, this center has two cobalt bombs to irradiate cancerous tumors and one stimulator, a piece of machinery that determines exactly the part of the organ to be treated and determines the appropriate irradiation dosage.

This center will soon be equipped with a scanner and a particle accelerator, two pieces of equipment that are indispensable in the treatment of this disease. However, the acquisition of a remote-controlled radiology table is something that is much hoped for by the medical team, whose sole concern is to treat this illness in the best way possible and avoid sending patients abroad.

The very high hard currency costs borne by the country for foreign care, according to Professor Si-Ahmed, go as high as 25 billion centimes [as published] to treat cancer alone.

In the view of this same official, who insisted on praising local and central authorities for their efforts in the building and running of this building, the state should invest in the center's equipment and training of specialized staff. For his part Professor Boualga, the head of the radiology department, emphasized the existence at the center of a good core operating staff as well as very good working relationships with the administration of the Frantz Fanon University Hospital Center [CHU]. There is, he added, a sort of "conviviality among the heads of the center's three main departments."

"This is a climate," he noted, "which promotes the effective running of this building and better patient care." Talking in the same terms, Professor Arezki, the chairman of the medical council, indicated that this center will be a "point of reference" no matter how little the central authorities decide to bestow financial and administrative autonomy on it.

With regard to teaching, an activity of which the medical team as well as the local authorities are very aware, a project to construct a teaching wing which would be common to the center is being studied since the Blida regional cancer treatment center, Professor Si-Ahmed pointed out, does not have treatment as its only aim but also teaching and research.

Last, the medical team believes that taking care of cancer patients is everyone's business.

This, according to the team, requires that every [ounce of] energy and good will, which could possibly bring more "comfort" to patients so as to help them deal with their illness be mobilized. Under this rubric, it should be pointed out that in February 1991 a wilaya chapter of the

"El Fedjr" Cancer Patient Help Association was formed, and this provides cancer patients with extremely important support.

Diabetics Fight Insulin Shortages, Isolation

93WE0494B Algiers *LE SOIR* in French 21 Jun 93 p 3

[Interview with Ouhada Mourad, president of the Algerian Federation of Diabetics' Associations (FAAD), by Djazia Gozim; place and date not given]

[Text] Altogether, Algeria has 1,898,000 diabetics. For them, life is a daily battle for insulin and syringes. Banding together in associations (and more recently a federation), their problems remain insoluble. Mr. Ouhada Mourad, president of both the Association of Diabetics of the Wilaya of Algiers and the Algerian Federation of Diabetics' Associations, tells us in this interview about problems faced by patients suffering from this condition and prospects for obtaining minimally adequate care.

Gozim: Why create a federation of diabetics' associations?

Mourad: The federation was created on 11 February 1993. Initially, we consisted of 11 associations, and today there are 25 of us. The idea behind FAAD's [Algerian Federation of Diabetics' Associations] creation was to give more weight, vis-a-vis the authorities, to our demands. We are a totally neglected category of patients.

Gozim: Even as a federation, though, you're still faced with constant problems?

Mourad: So far, we have had no local support in our efforts to unite or increase our membership, though there are 1,898,000 diabetics in Algeria, including 65,000 in the wilaya of Algiers. We meet every Thursday, for the time being in the diabetic department at Maillot Hospital (BEO). We have also had no outside support, since we started, from the Ministry of Health or the wilaya.

Gozim: What can you tell me about the members themselves?

Mourad: It is known that 61 percent of diabetics (the majority of them women) have no resources. You can work out the arithmetic for yourself. A vial of insulin costs between 80 and 240 Algerian dinars [DH]. A disposable syringe costs DH10, and typically you need three a day. We get no help paying for this. Nor do we get any help paying for Distro and Abstix (products to measure the urine's sugar content), even though they are needed every day. Abstix now gets special tax treatment, but we still get no help paying for it, since it is not on the official list of medicaments. How is a poor person to support all these expenses?

Gozim: What are you proposing to ease this burden?

Mourad: For uninsured persons, we want CNASAT [expansion not given] to cooperate by issuing a handicapped card, to defray a modest portion of the expense. Then, the ministry should revise the medicaments list so sufferers can be reimbursed for these outlays. We are

asking that glycometers be provided to the polyclinics, so patients can measure their sugar level for a token payment of DH5 (for purchase of bandages), to cut down on diabetic patients' constant visits to the doctor.

Gazim: Do you think the hospital environment is a source of problems for diabetics?

Mourad: Very much so. When a diabetic is hospitalized, he must take care of all the arrangements himself—provide his own syringes, insulin, etc. Otherwise he is not admitted into hospital. He also has special dietary needs. These are not met. The emergency center should have a separate unit reserved for these patients, since they cannot be treated like everyone else.

To undergo an eye examination every six months, the diabetic himself must furnish the film and wait a year before getting an appointment. He must also have the film developed at his own expense, act as his own doctor, and redo the operation if the negative is bad. Diabetics are dying, anonymously and alone.

Gazim: What is society's view of diabetics?

Mourad: Simply terrible. We are shunned like victims of the plague. A female diabetic has almost no chance of getting a husband. Lack of information in the media encourages ignorance of this disease, which is not contagious. If you apply for a job, you have no chance of being hired.

Diabetic children are not allowed to attend children's holiday camps. Why don't they have a right to these leisure activities? We are completely marginalized, and that is unjust.

Gazim: World Diabetes Day is celebrated on 27 June. Have you considered staging a demonstration for the occasion?

Mourad: People celebrate Arbor Day, Children's Day, etc., but never Diabetics Day, for lack of information and public awareness. In the past we have not done so, because we lacked the means as well as any sort of experience.

For this year—and it is very sad to have reached such a point—we are issuing an appeal to the minister of national solidarity to purchase token gifts for 500 diabetics hospitalized in the capital city. We would like to have done more, but lack of resources limits what we can do.

Editor's Note: Gifts may be addressed to FAAD, 4 Rue El-Hadi Dekkar (El Mouradia) and 27 Rue Mohamed Fellah (Kouba).

Health-Care Deficiencies Detailed

93WE0494A Algiers *EL MOUDJAHID* in French
21 Jun 93 p 15

[Article by R. So.: "Tlemcen Health Sector Anemic"]

[Text] The equipment and infrastructure problems we have in our health sector are growing larger with every

passing day. Health facilities exist, but they suffer from deficiencies of every kind.

We will cite by way of example the 800-bed university hospital center [CHU] of the wilaya of Tlemcen and the six district health units (totaling 650 beds), including Sebdou, Ghazaouet, and Maghnia, which along with a medical laboratory turned over to the CHU by the wilaya are supposed to meet the health needs of 859,443 inhabitants.

These facilities are trying to cope with the lack of specialists in rheumatology, neurology, clinical hematology, functional rehabilitation, infant surgery, urology, and resuscitation. Indeed, the last few months have seen an exodus of specialists from the CHU to the private sector.

A recent ministerial visit brought to light several inadequacies in utilization of infrastructure, notably in the CHU's department of surgery, which has 120 beds, though only 24 surgical procedures are performed per week by the dozen or so assistant masters and forty or so residents.

The hospital at Maghnia (75 beds) does 30 to 35 procedures of the same type each week with a staff of only four specialists; these latter have flagged problems encountered at the facility, such as the inadequacy of the two operating rooms and power outages occurring while surgery is under way.

Problems have also been noted in the oral surgery department at the Maghnia health unit, where 40 public sector dentists try to care for the dental needs of an estimated 146,374 inhabitants, while four of the unit's 11 dentists' chairs are out of service.

In February 1994 the CHU is supposed to get a new emergency care center. Meanwhile, patients are transferred to a primary care facility, where they cannot get adequate care because of its small size (it was previously the radiology department). Complaints have also been voiced about the dearth of medicines and other products, and about lack of coverage in specialized fields of medicine.

The same bitter complaints have been made about the new Ghazaouet hospital, whose administrator has acknowledged the absence of operating room equipment, to cite one example.

The 18 polyclinics, nine health centers, and 184 treatment rooms of the wilaya are all in the same condition, and lack of equipment, specialists, and general practitioners sometimes forces patients to go to the CHU for treatment.

The Department of Health and Population says construction of health centers is now under way in Sidi Zaouaoui, Shaa Chouikh, and El-Fehoul; it also notes that construction of health centers will soon begin in Ouled Mimoun and Taounane. The Department says no final decision has been made on the two hemodialysis centers for the Sebdou and Maghnia hospitals.

Unavailability of staff housing adds to the already long list of inadequacies, making it difficult to keep permanent personnel. There are 800 public sector physicians, and they could scarcely be described as optimistic. Only with the establishment of minimally acceptable work conditions and patient accommodations can better use be made of the 156 specialists (including 115 for the CHU) and 389 general practitioners (including 144 for the Tlemcen health unit and 28 percent [as published] for the CHU).

Concerning the paramedic corps, we note the CHU has 343 advanced medical technicians, whereas the Maghnia and Sebdou health units have only 97 and 61, respectively.

Also, recruitment of new doctors is stymied by lack of budgeted positions, and the health sector in Tlemcen wilaya must also cope with all manner of equipment breakdowns, and with unusable vehicles and equipment. The CHU's scanner, for instance, is down 40 percent of the time.

Although the wilaya is experiencing shortages in certain pharmaceutical products, there are a substantial number of private pharmacies in operation—81 out of the 141 pharmacies in the wilaya are private—whereas other regions are very lacking in this regard, for example the commune of Hammam Boughrara. The daira of Sebra has only two pharmaceutical dispensaries to cover the needs of an estimated 35,275 inhabitants.

In terms of diseases carried in the water supply, last year Tlemcen had one case of cholera, 120 cases of typhoid fever, 132 of viral hepatitis, and 16 cases of dysentery. Out of 37,622 chlorine samples tested in 1992, 30,897 were positive. In the first quarter of this year, 8,897 were tested, of which 7,383 were positive. It should be noted that every year typhoid fever hits Chetouane, the chief town of the daira.

EGYPT

U.S. Accused of Using 'Uranium-Tipped Shells' in Gulf War

*NC2606100893 Cairo AL-AHRAM in Arabic
16 Jun 93 p 8*

[From the close-up column by Salamat Ahmad Salamat: "The Iraqis' Human Rights"]

[Text] U.S. forces used new types of shells and weapons during the one-sided Gulf war battles that raged in the Kuwaiti desert and southern Iraq in "Desert Storm." Now that enough time has passed, it has become evident that these weapons have caused immense damage to the environment and to thousands of Iraqi civilians. They might have sown the seeds of death and ruin in Iraq for many years to come. Even the State of Kuwait might not escape their effects!

A number of reports that appeared in the American papers after the Gulf war confirmed that the U.S. forces used uranium-tipped artillery shells that leave radiation and

toxic material. They are probably the cause of the mysterious disease symptoms that appeared among Iraqi children that are similar to the symptoms of cancer compounded by severe stomach troubles. This caused the death of around 50,000 children during the first eight months after the Gulf war.

No one in the Arab world, the United Nations, and its environmental agencies has paid attention to this problem. The campaign of hostility and deep hatred for the Iraqi ruling regime has been and remains as strong as ever. All the attention has been and remains focused on ways to bring down and undermine Saddam's regime. Many have thought that a deterioration in the living and health conditions in Iraq would destabilize the regime and incite the Iraqi people against Saddam and his aides, as if it is necessary for the Iraqi people to pay a double price in return for nothing: starving it, isolating it internationally, and killing its sons and children while simultaneously continuing to suffer from Saddam and his gang.

Because no one can or wants to question the United States, the Pentagon has denied that radioactive ammunition and weapons were used in Iraq. But it was recently revealed that several thousand U.S. soldiers are suffering from mysterious disease symptoms that range from exhaustion to loss of hair and appetite, insomnia, loss of memory, pains in the joints, and stomach and heart troubles. It has become evident that the uranium-tipped artillery shells used have left toxic waste and dust that seep into the body's bones and cells. These shells are effective in hitting targets, especially tanks, and large quantities of these shells are still in the Kuwaiti desert!!

While the United States has the means and the resources to treat its sick soldiers, who will then be responsible for treating thousands of the sons of the Iraqi people? Is there no choice but to let the Iraqi people be punished instead of its rulers and to make it pay the price of the weapons testing that the United States carried out during the Gulf war? We address this question to the U.S., European, and Arab human rights organizations!

Minister Views Rumors of Deaths After Inoculation

*NC0107113793 Cairo MENA in Arabic
1554 GMT 30 Jun 93*

[Text] Cairo, 30 Jun (MENA)—A security source has denied rumors that some people died after they were inoculated or ate particular food. The source described these biased rumors as a criminal attempt to cause confusion and insecurity.

The source said the Interior Ministry and all its departments have received no reports in this connection. The Ministry also stressed that these rumors are groundless.

The source said the rumors are part of an attempt to disturb security and stability and affect public morale. Contacts with the Interior Ministry showed these rumors aim to stop Health Ministry inoculation programs to protect people and prevent the spread of disease and

epidemics. These rumors are as dangerous as, even more dangerous than, the terrorist attempts to terrorize citizens.

The source said the Interior Ministry does not hide facts from the people. It is committed to giving prompt information on any event, because it is convinced of the people's role in sharing the security agencies' mission and their positive and constructive confrontation of crime.

[In a related report, Cairo MENA in Arabic at 1811 GMT on 30 June adds the following: "Health Minister Dr. Raghib Duwaydar has denied reports that children have died after being inoculated. He said there has not been one death from inoculation in the past two years."]

[Dr. Duwaydar said the ministry has 150 blood banks and supervises some private banks. Random samples are taken to ensure blood is suitable and free from disease.]

Specialists' Medical Team Leaves for Sudan

*NC0707150293 Cairo MENA in English
1053 GMT 7 Jul 93*

[Text] Aswan, Upper Egypt, July 7 (MENA)—A medical team of specialists in protective medicine left here for Wadi Halfa, Sudan, today. The team will spend a month in Sudan in a research campaign to fight Gambia mosquitoes in line with the Egyptian-Sudanese health protocol for epidemic-combat.

INDIA

Isotope Unit Develops Radio Equipment for Brain Imaging

*BK0306091893 Delhi All India Radio Network
in English 0830 GMT 3 Jun 93*

[Text] The Board of Radiation and Isotope Technology, BRIT, under the Department of Atomic Energy, has developed a new radio pharmaceutical product for brain imaging. The new product has been found useful for diagnosing neurological disorders. According to official sources, BRIT supplies this for use in nuclear medicine to about 300 medical institutions in the country. An estimated 700,000 investigations were carried out in India using this technology and chips supplied by BRIT.

IRAN

Martyr Foundation Pharmacies Lack Adequate Supplies

93L40050V Tehran ABRAR in Persian 21 Apr 93 p 3

[Interview with Ms. Fatemeh Karube, director of the Medical Center and treatment and pharmaceutical deputy director of the Shahid Foundation, by IRNA; place and date not given]

[Text] Tehran, IRNA. Failure to deliver 170 pharmaceutical items needed by the Shahid Foundation pharmacies and the failure to deliver 30 pharmaceutical items at a very

limited level by the pharmaceutical officials of the country have created many problems for the pharmacies and their customers.

Ms. Fatemeh Karube, the director of the Medical Center and treatment and pharmaceutical deputy director of the Shahid Foundation, made the statement in an exclusive interview with IRNA and added: The pharmacies of the Shahid Foundation have been visited by 7 million customers; but, unfortunately, due to the shortage of 170 needed pharmaceutical items, the managers of the pharmacies have to tell the customers that they do not have the drugs they need, and they must go to the special pharmacies to get their drugs.

The head of the Medical Center of the Shahid Foundation also added: Despite the problems created due to delays in carrying out the financial commitments of the two agencies, that is, Social Security and Treatment Services for the Medical Center, this center has been able to sign treatment contracts with 38 different organizations and institutions, and at the present time, these organizations, making use of various insurance policies, use the treatment and medical resources of the Shahid Foundation.

Health Ministry Aims To Segregate Hospitals

93L40049Y Tehran ABRAR in Persian 28 Apr 93 p 10

[Text] The Ministry of Health Care, Treatment and Medical Education intends to gradually separate men's and women's hospitals and men's and women's departments, and in this regard, with Majles approval, 5 percent of the credits for the generic project to implement the project to separate men's and women's hospitals and departments has been allocated.

IRNA reports that Larjani, deputy minister of health care, treatment and medical education for educational and Majles affairs, who had traveled to the province of Lorestan, announced the above. He said: In the month of Tir this year [22 Jun-22 Jul] the International Congress on Medical Ethics will meet in Tehran, attended by professors from the nation's universities and foreign professors.

He added: This congress will meet to study the role of ethics in the medical profession, and so far 300 articles have been sent to the congress secretary.

Shortage of Essential Drugs Reported in W. Azerbaijan

93L40049X Tehran ABRAR in Persian 28 Apr 93 p 9

[Text] Nowshahr--IRNA. Patients in the cities of West Azerbaijan face many difficulties obtaining basic drugs.

Several pharmacists in the cities of West Azerbaijan confirmed this and said that the main malfunctions having to do with the distribution of specialist and basic drugs are caused by the improper rationing of drugs in the country.

These pharmacists also said: Every three months the companies distributing drugs in the province of Mazandaran are required to distribute specialist drugs in this

region, so that personal preferences have prevented the timely availability to patients of these vital drugs.

Report on State of Health Care in Esfahan Province

*93L40065G Tehran JAHAN-E ESLAM in Persian
8 May 93 p 5*

[Text] Throughout the province of Esfahan there are 1,681 general and specialized physicians and 206 dentists engaged in the care and treatment of the patients of the province.

Similarly, there are 304 pharmacies (drugstores), 42 hospitals, 39 medical laboratories, 25 radiology labs, 17 public and private nonprofit infirmaries (wards), and four clinics with limited surgical capabilities, which are active for the treatment of patients in need of help.

Dr. Banak, deputy director for the Regional Health Care Organization of the province, in a conversation with IRNA's correspondent declared the number of hospital beds of the province at 7,110.

While expressing his satisfaction with the health care and treatment condition of the city of Esfahan, he said: Our major difficulty is the shortage of specialized physicians and other treatment possibilities for the deprived regions of the province.

While stating that in the current year about 10 billion rials [Rls] of credit was allocated for the treatment services of insured individuals, he said: If we do not have any increase in the tariff, we will not be facing any budget deficit in the area of treatment services.

The deputy director for the Regional Health Care Organization of the province of Esfahan pointed out that the cause of nonpayment of debts of treatment centers when due in 1371 [21 Mar 1992-20 Mar 1993] as the unforeseen increase in the price of drugs and tariffs, which was not reflected in the allocated budget.

He went on to say: Last year the budget for treatment services of the Esfahan Province was Rls5 billion, but with the increase in the price of drugs and tariffs, which began in 1370 [21 Mar 1991-20 Mar 1992] and nearly doubled by the end of 1371, we faced a deficit of Rls4.5 billion; this matter caused some delay in the payment of the debts of which a portion has been duly paid.

He further mentioned the creation of an ophthalmology department each in Shahreza, Khomeyni-shahr and Ardeshan, and the erection of six emergency stations throughout the city of Esfahan; construction of similar emergency stations in Vazvan, Qorogchi, and Murche-khort on the Esfahan-Tehran highway and construction of

an information center for patients in Esfahan as some of the measures taken by the aforementioned organization during last year.

Medical Exports to Central Asian Republics Questioned

*Plans To Export Medical Supplies Announced
93L40064Y Tehran JAHAN-E ESLAM in Persian
8 May 93 p 2*

[Text] Seyyed Mojtaba Arastu had a conversation with the new director general of the UN Industrial Development Organization (UNIDO) regarding the joint project between Iran, WHO, and UNIDO in the area of the marketing and sale of health and pharmaceutical products manufactured in Iran and exported to the Central Asia republics.

Seyyed Mojtaba Arastu, ambassador and permanent representative of the Islamic Republic of Iran at the United Nations and international organizations in Vienna, during his visit with Mauricio de Maria y Campos, the new director general of UNIDO, reached an agreement for dispatching a delegation from UNIDO and WHO to the Islamic Republic of Iran.

In his interview with IRNA in Vienna, Arastu stated: The forthcoming trip of the delegation is intended to finalize the joint project between our country, WHO, and UNIDO.

Arastu went on to say: The new director general of UNIDO, while expressing his appreciation to the Islamic Republic of Iran for its support of the said organization that is currently undergoing serious financial difficulties, also expressed his agreement to send a delegation to Tehran in order to find more avenues for cooperation.

Arastu further said: With regard to the issue of the withdrawal of Canada from UNIDO and its effects on the quota of financial support of other member states and the fate of said organization, the new director general was asked about the responsibility of other nations, particularly the industrial countries versus UNIDO, to adopt a mechanism whereby it would discourage the withdrawal of the member states from this organization.

Furthermore, it should be noted: Canada will discontinue its membership in UNIDO as of next year. Canada's quota of its financial support of the capital fund of \$197 million is 3.09 percent or about \$6.5 million.

The share of the United States of America stands at 25 percent while that of France is 5.4 percent together with many other Western industrial nations and some of the Third World countries, which have not paid their due shares to the organization, thus incurring severe financial hardship on UNIDO.

The debt of member countries to UNIDO as of the end of February 1993 was about \$80 million.

Paper Questions Soundness of Decision
93L40064Z Tehran JAHAN-E ESLAM in Persian
8 May 93 p 2

[Text] In today's news reports it was mentioned that Iran, with the cooperation of the UN Industrial Development Organization [UNIDO] and WHO, is planning to sell its health and pharmaceutical products to the Central Asia republics.

It should be noted that this effort on the part of our executive officials is taking place under circumstances when our own people throughout the country are facing a severe shortage of health and pharmaceutical products.

Furthermore, every day we hear news reports from around the country, particularly the remote and deprived areas of the nation, that our people are suffering from the dearth and exorbitant prices of essential medical necessities.

On the other hand, Dr. Malekzadeh, minister of health, treatment and medical education, in an interview with a morning newspaper while mentioning the fact that the pharmaceutical industry of the country is fully dependent on foreign exchange, also states: Although some of the pharmaceutical products are produced in the country, the raw materials for these products together with many other medicines are imported as readymade items.

Moreover, Dr. Malekzadeh announced that the only way to resolve the shortage of medicine is to extend subsidies to needy individuals and decrease the price of the products accordingly.

Now, with due regard to the statements of a top-executive official of the country concerning medicine and treatment, we would like to leave the judgment to the people and ask whether it is advisable, under such circumstances, to export our health and pharmaceutical products!

Lordegan's 96-Bed Hospital Nearing Completion
93L40078ZH Tehran JAHAN-E ESLAM in Persian
13 May 93 p 5

[Text] Shahr Kord, Lordegan, JAHAN-E ESLAM correspondent: During the visit by the governor-general of Chahar Mahall va Bakhtiari and people's representatives from Lordegan and Borujen to a hospital under construction in Lordegan, Dr. Alavi, Lordegan's representative in the Islamic Consultative Assembly [Majles] announced that construction of the 96-bed hospital of Lordegan, which had been halted for a long period of time, after securing appropriate credit, will be completed by the end of 1372 [21 Mar 1993-20 Mar 1994]. And [he] hoped that the hospital will become formally active and operational at the beginning of 1373 [21 Mar 1994-20 Mar 1995].

Dr. Sadri, executive director of the Regional Health and Treatment Organization of the province told the JAHAN-E ESLAM correspondent: For the completion and operational activities of this hospital, a credit of 280 million tomans were secured from the national plan fund.

Dr. Alavi, people's representative in the Majles, stated: This hospital consists of Internal Medicine, Surgery, Gynecology, and Pediatric-Care Wards. With regard to the procurement of gas for the hospital, he said: Installation of the piping for gas has almost been completed and it is hoped that after the final stage when the system becomes operational, we will be able to secure the needed gas from the main [trunk line].

Thereafter, Neku' Zahra'i, governor-general, in a meeting composed of the local authorities and others present emphasized the completion of the 96-bed hospital of Lordegan and stated that the creation and operation of health and treatment centers in the deprived regions of the country is an indication of the government's intention for cooperation and assistance.

Foreign Doctors Leave Due To Decrease in Salary
93L40095Z Tehran ABRAR in Persian 16 May 93 p 5

[Text] Forty-five foreign physicians in the province of Kohkiluyeh va Boyer Ahmad have quit their jobs and returned to their countries, India, Pakistan, and Bangladesh, because of the unification of the foreign exchange rate and the reduction in local wages.

The deputy for health care in the province of Kohkiluyeh va Boyer Ahmad Health Care and Treatment Organization discussed this matter yesterday with IRNA's correspondent. He said: With the departure of these physicians, health-care messenger forces have replaced them.

He added: Currently, of the total of 135 general physicians in this province, 15 are foreign, of whom five are employed in Boyer Ahmad and Gachsaran and 10 are employed in Kohkiluyeh.

Concerning the health-care coverage for the various regions in this province, Dr. Heydari said: Right now the cities of Gachsaran have 100-percent coverage, Kohkiluyeh has 99-percent coverage, and the regions in the municipality of Boyer Ahmad, with the exception of the two regions of Chin and Zila'i, which have problems concerning land relations, are fully covered by health care and treatment services.

Concerning manpower procurement, Dr. Heydari said: Authorization to hold classes on midwifery, pharmaceutical technician and laboratory work has been obtained for this province and in the month of Mehr this year [23 Sep-22 Oct 1993], environmental and family health-care classes will also be held.

He said: With credits in the amount of 46.5 million rials, the project to improve three villages in the province of Kohkiluyeh va Boyer Ahmad began last year, and the physical progress of these projects is 60 to 85 percent in Kakan, Sarfaryab and Arvbin.

He noted: In the framework of these projects the needed materials have been provided to the people so that they can build and improve on springs and water sources, toilets and sanitary sewage.

He said: In the three existing hospitals in the province of Kohkiluyeh va Boyer Ahmad, Yasuj, Gachsaran and Dehdasht, there are 357 beds. The beds in Yasuj Hospital, despite the fact that they have more than tripled, do not meet the needs of the province.

Infant Mortality Due to Poor Health Care

93LA0093W Tehran ABRAR in Persian 17 May 93 p 9

[Text] Hamadan-IRNA—As a result of a lack of proper health care, the abnormal frequency of diarrhea, malnutrition, treatable and preventable infectious diseases, on a daily basis about 365 children under 5 years of age die in Iran.

Engineer Khosrow Mani, deputy director for research at the Medical Sciences University of Hamadan, on the 10th anniversary of the general health training mobilization, yesterday in a conversation with IRNA's correspondent announced: About 80 percent of the abovesaid number of children die before reaching one year of age.

He further added: Similarly, on a daily basis and on average, eight Iranian women die as a result of pregnancy complications.

He went on to say that the cause for the death of these women could be attributed to the frequency of pregnancies and childbirths, lack of proper health care during the months of pregnancy, and improper nutrition in the same period.

While emphasizing the disadvantages of a rapid population growth, he said: Right now, on the average in every 17 seconds an infant is born in Iran. Considering the current rate of population growth, in the next 20 years Iran's population will reach 120 million.

He further indicated that an effective method for preventing the rapid population growth is proper education and familiarization of the families with the facts and consequences of unwanted pregnancies.

Sale of Farabi Factory Pharmaceuticals Begins

93LA0097X Tehran ABRAR in Persian 22 May 93 p 10

[Text] Esfahan-IRNA: The first series of products produced by the Farabi Pharmaceutical Factories in the Middle East, including antibiotics for oral consumption and injection, came into the nation's drug markets on Thursday.

This factory produces 1.2 billion capsules and 25 million ampules of dry suspension liquid, which account for 66 and 65 percent of the domestic market, respectively.

The Farabi Pharmaceutical Factories were established with an investment of 14 billion rials. In the first phase they will save \$24 million and in the second phase they will save \$52 million in foreign exchange.

The added value of this factory is 26 percent and its shareholders are the Iran National Industries Organization, the Pars Drug Company, the Sepah Bank, and the Kusar Company.

Shahriar Maternity Hospital Inaugurated

93LA0097W Tehran ABRAR in Persian 24 May 93 p 9

[Text] Shahriar—ABRAR Correspondent: A 70-bed hospital and maternity ward in the Municipality of Shahriar was opened yesterday morning on the eve of the anniversary of the liberation of Khorramshahr, in ceremonies attended by Dr. Malekzadeh, minister of health, health care and medical education, the Friday imam, the governor of Shahriar and local officials.

This hospital is located on a 6,000 square-meter plot and has a foundation of 2,100 square meters. It has an emergency ward, a gynecological and maternity ward, general surgery, a laboratory, radiology, a blood bank, and three operating rooms.

It cost 2 billion rials to build and equip the aforementioned hospital, which has four stories. Part of the costs was met by the governor's office, and the rest by credits from the Ministry of Health, Health Care and Medical Education.

During his trip to Shahriar, Dr. Malekzadeh also attended ceremonies to begin construction on the 300-bed hospital in Shahriar.

This hospital will be built on a 80,000-square-meter site using aid from the public and government credits.

Because the municipality of Shahriar, with a population exceeding 70,000 people, lacked a hospital the citizens and rural people in this municipality were obliged to go to Tehran and Karaj for medical treatment and cures. It is worth mentioning that Account No. 36200 at the Shahriar branch of the National Bank was opened for charitable contributions to this hospital.

MOROCCO

Director of Children's Hospital Gives Figures

93WE0456A Rabat AL-MITHAQ AL-WATANI in Arabic 14 May 93 p 3

[Interview with Prof. Driss Alaoui, chief of Intensive Care and Anesthesia Department at Rabat Children's Hospital, by Mohamed Belmou in Rabat; date not given: "Prof. Driss Alaoui to AL MITHAQ AL-WATANI: Media Have To Shoulder Their Responsibility in Disseminating Sound Health Education"]

[Excerpts] In every society, there are unknown soldiers who work day and night to serve one of their society's causes with extraordinary devotion, sincerity, openness, and modesty. Driss Alaoui, chief of the Intensive Care and Anesthesia Department of Rabat Children's Hospital and chairman of the Society for Children's Life, is the type to whom the "unknown-soldier" characteristic applies. He is well known to the medical crew that works with him in his medical profession for his devotion and his strict shouldering of the responsibility within a vital collective framework. He is available and prepared at any time to save a child or to perform surgery. When we went to the department to interview him, we did not find him there. We asked his colleagues, who received us most warmly, and

learned from them that he had taken the day off for a break from his constant and ceaseless work at the department.

Despite his exhaustion, he expressed his willingness to come to the department for an interview with AL-MITHAQ AL-WATANI. But Dr. Fathi, a colleague of his, asked him if it was possible for us to go interview him at his home. Alaoui then asked Dr. Fathi to see if one of the doctors could drive us to his home because he insists that the department vehicles be used for department business only. This was an indication of the professor's respect for the profession's ethics and of the principles of frank and responsible dealing. I felt that the man I was going to interview is the kind that has high ethics and principles from which he does not swerve. We went to his home in the newspaper's car, and we had this beneficial and interesting health interview with him:

One Thousand Children Annually

Belmon: To start, we welcome you, Dr. Driss Alaoui, to AL-MITHAQ AL-WATANI in your capacity as chief of the Intensive Care and Anesthesia Department of the Rabat children's hospital, and we beg you to give the readers a brief synopsis about this department.

Alaoui: The department has been operating since 1979 and it is concerned with children's intensive care and anesthesia from birth to the age of 15. Children come to us from all parts of the country and from other cities, especially since this is the only department of its kind, excluding the similar department in Casablanca, which does not lack medical capabilities and cadres as much as it lacks the necessary equipment and material resources. This is why our department receives patients from all parts of Morocco, beginning with Tangier and ending with Boujodour and all the other provinces. On the average, the Intensive Care and Anesthesia Department receives nearly 1,000 children annually. According to the statistics at our disposal, 60 percent of these children are not over the age of two years and 40 percent are not over the age of one month. This is proof that the main problem that we face is connected with the latter percentage, i.e., with infants who are not more than one month old. This means newborn babies who have problems emanating from the nature and circumstances of their birth, i.e., births at which the appropriate level of medical and technological conditions is not available. Moreover, our department receives children between two and six years old who are exposed to various accidents. Such accidents are not necessarily connected with traffic solely but also include accidents at home, whether inside the home or within its environs. We receive weekly a child between the ages of one and one-half to four years suffering from suffocation as a result of swallowing an object that lodges in his respiratory system. We also receive children with burn cases and children who have fallen from high places, perhaps a ladder, a window, and so forth, in addition to children injured in traffic accidents. [Passage omitted]

Belmon: What are the most prevalent diseases or cases among the children you receive?

Alaoui: Nearly 50 percent of the children we receive at the Intensive Care and Anesthesia Department suffer from putrefaction-causing infections, followed by accidents, and then by diseases resulting from abnormal birth.

Belmon: Can you give us figures on accidents.

Alaoui: Yes. Over an 11-year period, we have received 2,700 children injured in accidents. We have also noticed that 80 percent of these accidents are the result of accidents in the home and within the home environs whereas only 20 percent are the result of traffic accidents. It must be noted here that when we hear the word "accident," we immediately think of traffic accidents. But we must not forget that insofar as a child is concerned, accidents posing a threat at home or within the home environs are more numerous. This doesn't mean that traffic accidents or something easy or ordinary. These, too, are serious and we receive very serious cases resulting from this type of accident. But for a child, accidents at home pose a greater threat, and I can tell you what these accidents are: A child may stumble, fall from a ladder, get too close to a fire, or enter the kitchen when he should not at this age, and children allowed to play with anything as a toy. For example, we leave the parents' or the grandparents' drugs within the reach of the child who will reach out and put such drugs in his mouth. There are parents who don't understand the danger of putting detergents, such as detergent bottles, within a child's reach. Another negative thing we do is when we buy "Javille" liquid and put it in a soft-drink bottle, thus setting a serious trap for our child in which he is caught easily and that causes the child numerous serious problems. [passage omitted]

Infants' Movements

At a later stage, i.e., beginning at the age of two to three months, an infant begins to move and turn around. In this case, he can fall from the spot in which he is placed. This requires that we keep the infant in sight and watch him carefully, placing him in a spot from which he cannot fall. As for the position in which an infant should sleep, contrary to the common belief that an infant should sleep on his stomach, some studies have confirmed that this position is dangerous and could cause an infant to suffocate to death. It is better that the infant be laid on his back on a mattress that isn't too soft so he will not suffocate. No pet, whether a dog or a cat, should be left next to the infant. Regarding cats, of which Moroccans keep many, they may lay too close to the infant and cause him to suffocate. Numerous such accidents have occurred.

Perhaps suffocation is one of the most serious cases with which an infant is faced in the fourth month of his life. This is when an infant begins to play and he picks up everything and puts it in his mouth. This threat is also present because up to the age of six, a child does not have control over and cannot regulate the functioning of the respiratory tract and the digestive tract at the point where both meet in the mouth. When a grownup speaks, the digestive tract shuts down and when he eats, the respiratory tract shuts down. But this system doesn't function in the child until a later stage and at a slow, gradual pace.

This is why the child is faced with the threat of suffocation from the age of four months up to the age of nearly six years. Consequently, it is necessary to pay attention to children in this phase and to keep foodstuffs that pose a threat to them out of their reach, such as sunflower seeds, cocoa seeds, and so forth. Even for children between the age of 10 and 14 years, they could suffocate by chewing gum and engaging in an athletic activity at the same time. Athletic activity demands heavy breathing and use the chewing gum could be drawn into the respiratory tract as a result of this heavy breathing.

For your information, a soccer player dropped dead in the field nearly six months ago. When an autopsy was performed, it was found that a piece of chewing gum had been drawn into the respiratory tract, thus blocking the breathing canal and causing the player to suffocate. [passage omitted]

Collective Responsibility

Belmon: Regarding the Intensive Care and Anesthesia Department, in what position is it now in terms of needed equipment?

Alaoui: Let us return to the figures. As I have already said, we have been receiving nearly 1,000 children annually over the past 15 years, i.e., a total of 15,000 children. Out of this number, we have saved 11,379 children, if my memory hasn't failed me. This is proof of the availability of resources that have helped us make this effort and save this significant number of children. However, we haven't been able to save nearly 4,000 children. Therefore, we have to redouble our efforts to save every child that comes to the department. Moreover, the department resources have been improving for the past one and one-half years. We have noticed that the capability aspect has been improving tangibly and the rate of children saved has risen from 70 percent to 80 to 85 percent. This improvement is due to the development experienced by our human resources. God be thanked, the standard of experience and of sacrifice, whether among physicians, nurses, or sanitation workers, is good. We must realize that work in the Intensive Care Department relies on collective participation and collective responsibility. However, we aspire to secure technological resources in order to enhance our professional and medical performance and to increase the percentage of those who benefit from the department's services. We do have significant technological resources now. But we need additional technological resources in order that we can rescue and save all children we receive at the department. To encourage society to contribute to developing the equipment and, consequently, efficiency of the intensive care and anesthesia department, we founded nearly two years ago a society we have called the Society for Children's Life. Since this society was founded, the department has gotten 100 million to 130 million centimes. Equipment acquired by the society becomes the property of the Intensive Care and Anesthesia Department. What the society has done has helped enhance the department's performance. Although the department has 12 beds, only four of them have enough technological

equipment to raise them to the required standard. An intensive-care bed costs 80-100 million centimes. An artificial respirator costs 20-30 million centimes. A pulse monitor costs approximately 5 million centimes. A blood-pressure monitor is less, amounting to 4 million centimes. As for the breathing monitor and oxygen machine, it costs about 5 million centimes. An incubator to protect an infant from cold, especially underweight newborn babies, costs 7-10 million centimes. This is why the eight beds that are not up to the standard of reviving children in a certain state of danger have only 50 percent of the required resources. Meanwhile, the serious cases received by the Intensive Care and Anesthesia Department dictate that all these pieces of equipment, which function together, be available to every bed. One cannot rely on the physician's ability and the nurse's experience. Rather, it is essential that these sophisticated technologies be available in each bed to save injured children. When we talk about intensive care in advanced countries, the mortality rate in such departments shouldn't exceed 5 percent to be acceptable, regardless of how important and significant the equipment available to the department. As for our intensive care department, the mortality rate ranges from 20 to 25 percent, which is an encouraging rate when compared with the resources available to us. But our goal is to reduce this rate to a mortality rate of 10 percent at the most, with efforts to reduce it even further to 5 percent, 4 percent, or 0 percent, if we can. This requires the government on the one hand and society on the other to exert extra efforts to secure all the equipment necessary for the intensive care department. The government has provided nearly 90 percent of the available resources. But society has to contribute on its part to bolster the Intensive Care Department and to enhance its technological standard so it can rise to the level of receiving and saving the life of any Moroccan child faced with a health threat. We know that whether in the United States, Canada, or France, every section or department of this type has an association or an organization through which society contributes to backing up and bolstering the section materially and morally.

As for our society—the Society for Children's Life—we say that the department's doors are open all the time and without interruption and that we are prepared to receive whoever wishes to find out the fate of the aid we get and to answer all his questions on income, expenses, and costs with utter frankness and objectivity. This is why we tell every citizen wishing to help us that he can watch over his contribution at any time because frankness is very fundamental for our department.

Great Ambition

Belmon: In your capacity as chairman of the Society for Children's Life, what are your future plans?

Alaoui: The society's primary objective is, of course, to bolster the Intensive Care Department and to equip it fully. When this objective is accomplished, we will move to expand the geographic area, which benefits from the Intensive Care Department, considering that this department covers one-half the country at present. After securing

all the equipment, our goal is to cover the entire country within the framework of organized programs. At present, we have two equipped ambulances that can go to the site where a patient is located and transport him under appropriate technological conditions, as if the patient is in the department itself. These two vehicles are very different from what is known as ordinary ambulances because each vehicle resembles a minidepartment, considering that it has all the required equipment. We have transported a child from Casablanca and another from Meknes, and so forth. The human and technological resources are available. What is required is uninterrupted financial resources so we can renew our infrastructure and revitalize the level of our medical offerings. Having reached Meknes, our aspiration is to reach Marrakesh and Aioun. [passage omitted]

Pollution Danger

Belmon: In recent weeks, a scientific and medical day on the impact of the environment on health was held in the town of Ben Slimane on an initiative by a number of physicians. What is your viewpoint of the consequences of environmental pollution to child health?

Alaoui: In my opinion, we didn't wait for a warning from abroad on the dangers of pollution to children's health and life. Let us, for example, look at the citizens who live in tin [shanty]towns. In the absence of an effective organization of roads, sewage disposal, and potable water networks, we find that the children of these towns are exposed constantly to putrefaction-causing diseases. Therefore, organized housing and sewage disposal and potable water networks are essential for a healthy and untainted life for our children. Water pollution contributes to nearly 40 percent of the mortality rate among children. This is a serious level that demonstrates the extent of the danger posed by pollution to our children's life. Moreover, pollution in the major industrial cities contributes directly to the spread of respiratory diseases. This is why we find that children are exposed to respiratory allergies, which are widespread in industrial coastal towns.

An Ounce of Prevention

Belmon: On the basis of your experience and your expertise in the Intensive Care and Anesthesia Department, what is the incident that has embedded itself in your memory?

Alaoui: Two years ago, our material and technological resources improved. The incident that is embedded in my mind is that tetanus is fatal in 99 percent of the cases. We have exerted great efforts to reduce this rate and we have been recently able to save 15 to 20 lives by putting patients on artificial respiration for a month each. The great surprise that one must actually overlook is that saving the life of a child infected with tetanus is 12-15 million centimes. On the other hand, we should realize that this disease develops as a result of failure to vaccinate the

mother against it and from the use of abnormal means in birthing (tying the umbilical cord). Vaccinating the mother can spare the child this disease, and this vaccination costs no more than 25 dirhams. So let us compare the cost of prevention with the cost of cure. It is a very big difference. Therefore, the advances in intensive care and treatment technologies must not relieve us from considering preventive means. Rather, it is required to escalate prevention and to develop it in a balanced manner with the intensive care and treatment technologies. Is it reasonable that many citizens, especially from the well-to-do classes, neglect vaccination despite the great progress Morocco has experienced in this area? Moreover, is it reasonable that a physician's son and a nurse's son get infected with tetanus? These are examples of actual cases we have had.

I would like to point out here the importance of vaccination against the hepatitis virus. We cannot wait until we develop the disease and then try to cure it at a very high cost instead of vaccinating against it at the smallest cost.

Therefore, I advise citizens not to trust to fate because diseases cannot be confronted efficiently with treatment alone. It was said in the past, "An ounce of prevention is better than a pound of cure."

Report on Public Health, Family Planning

93WE0414A Rabat ALMAGHRIB in French
15 May 93 p 3

[Unattributed article: "Family Planning: Controlling Population Growth"]

[Text] The second issue of the Ministry of Public Health's information bulletin, "Info Sante," was just published. This new issue contains an interview with the minister of public health, concerning the planned reform of the hospital system along four main lines. As the minister pointed out, we must overhaul hospital financing and management, modernize and develop hospital facilities, and at the same time do something about human resources.

This issue also contains a comprehensive article on family planning, which highlights the efforts of the National Program, emphasizing the evolution of Morocco's population situation. Estimated at 91 per thousand in 1980, the infant mortality rate currently stands at 57.4 per thousand. This is certainly a remarkable development, but it is not enough and much remains to be done. Family planning is everybody's business. It has an impact on the health of mother and child, and on family welfare. Controlling population growth then becomes an imperious necessity to ensure the social and economic development of a whole country. As a whole, based on the indicators used to evaluate its results and its efforts, the national family planning program has been a success; however, renewed efforts in a context of intersectorial collaboration are required if we are to control the population growth, which far exceeds the country's potential and resources.

Public Health Sector Statistics Published

93WE0433A Rabat L'OPINION in French
22 May 93 pp 1, 3

[Article by Ali Benadada: "Diagnosis of a Sick Sector"]

[Text] *The Ministry of Public Health has just published the second issue of its news bulletin INFO SANTE—certainly a commendable initiative, since it makes it possible to provide a few (official) explanations concerning the situation in Morocco's health sector.*

The least one can say is that that situation is alarming. Here is a report on an ailing sector!

The Moroccan hospital system "is experiencing a...deterioration in the quality of care." A deterioration that is only "the consequence of structural and operational problems in our hospitals. Shortcomings in equipment, deteriorating buildings, shortcomings in performance and operations, poor management, aging hospitals (half of those in the system are over 30 years old), and medical-technical equipment that is over 20 years old even though the normal operating life is 10 years." And that is not all. It is the minister of public health himself who says so in the second issue of the bulletin INFO SANTE.

It is certainly a gloomy picture, but there is nothing new about it. For those same reasons and numerous others that are just as important and serious, public health personnel began a general strike on 13 February 1992 that was called by the National Public Health Federation (UGTM [General Union of Moroccan Workers]) and the National Public Health Union (CDT [Democratic Labor Confederation]).

What is new is that this is the first time that a top man in the Ministry of Public Health has accepted responsibility and acknowledged a situation that is likely to grow worse.

It is true that steps have been taken to overcome the most urgent problems, and a reform is planned for improving our health. But the steps taken could do no more than set our hospital system "in motion relatively speaking."

Concerning the planned reform, there is reason for skepticism regarding its effectiveness in curbing the problems eating away at the public health system.

That skepticism arises from the fact that the reform was worked out unilaterally without consulting the other partners affected by the matter.

And it happens that one reason for the work stoppage on 13 February 1992 was the lack of dialogue between public health officials and representatives of the sector's personnel.

Health in Figures

Public health is one of the country's most deficient and deficit-ridden sectors. And since it is impossible to "clap with only one hand," remedying the crisis characterizing the health sector requires the participation of all the social partners, if only to get an overall view of the problem.

Only 60 percent of the Moroccan hospital system's beds are being used. In some regions, the occupation rate does not exceed 25 percent. This does not mean that Moroccans are in such good health that our hospitals strike us as too big for our needs. Nor does it mean that we are so rich we can afford to disdain the public sector and use the private sector instead. On the contrary, it simply reflects poor management and the structural and operational problems of our hospitals. Among other things.

The second characteristic of the health crisis in Morocco is the disparity in the distribution of facilities and doctors (not to mention their insufficient numbers).

Let us talk about insufficient numbers first.

Professor Harrouchi announced during the opening of the First Maghreb Conference on Family Planning and Population that "we need to build nine hospitals per year...during the period from 1992 to 2007."

In an interview published in INFO SANTE, he said we would need 12,000 beds, three medical schools, and 1,000 health centers and dispensaries during the seven years separating us from the dawn of the 21st century.

As regards the disparity in the distribution of facilities and doctors, Morocco's 25 million inhabitants have only 5,711 doctors to take care of them (source: 1991 edition of the *Morocco Statistical Annual* in Arabic). That is one doctor for nearly 4,500 inhabitants. But the governorates of Casablanca and Rabat have the lion's share.

Over 44 percent of Moroccan practitioners (both private and public) are active in the two governorates of Casablanca and Rabat-Sale. That adds up to 2,723 doctors out of a total of 6,120.

In Casablanca alone, barely 500 of the 1,595 practitioners work in the public sector, and that is not even one-third of the doctors practicing in that governorate.

According to figures from the National Public Health Federation (FNSP) (UGTM) and the National Public Health Union (SNSP) (CDT), the disparity in the distribution of doctors and health cadres is such that in some cases there is one doctor for over 20,000 inhabitants in urban areas, a figure that can rise to one doctor for nearly 36,000 inhabitants in the rural areas.

In the case of pharmacists, the problem is much more serious. There are only 1,802 pharmacies in all of Morocco's territory. That is an average of one pharmacy for an area of nearly 400 square km. But here again, the disparities are glaring. The governorates of Casablanca and Rabat-Sale alone have 742 pharmacies. That amounts to 41 percent of all Moroccan pharmacies. It also amounts to one pharmacy for every 6,328 inhabitants. In the rest of the territory, the general average is one pharmacy for over 20,000 inhabitants. By way of example, Boujdour has no pharmacy at all even though it has over 10,000 inhabitants. In Marrakech, the capital of the south with over 1.5 million inhabitants, there are only 92 pharmacies. That amounts to one pharmacy for over 16,000 inhabitants.

And if that is the average in the large urban areas, one wonders what it must be in the rural areas and how many hundreds of kilometers a country dweller has to travel to get a bottle of aspirin.

The Achilles' heel of public health therefore has to do with the possibility (or rather, the impossibility) of gaining access to the various services provided by the public health system.

Who Has Access?

The problem is not merely one of proximity. Once that handicap is overcome, who can afford treatment, especially now that free care has disappeared?

Also according to the *Morocco Statistical Annual* (1992 French-language edition), beneficiaries (members plus eligible individuals) of the mutual insurance societies numbered fewer than 3 million Moroccans in 1991 (barely 2,750,000). That leaves the majority of the remaining 22 million Moroccans without any medical coverage at all. And it more than explains the multitude of "appeals to charitable souls" appearing in the Moroccan press.

When faced with a serious or urgent illness and unable to meet the expense of an operation or medical treatment because of a lack of funds and medical coverage, there are only two choices: begging or trusting in providence.

The planned reform of the hospital system as presented to the Council of Government on 11 February 1993 called for a form of "health insurance" to solve the problem. But that alternative "will cover only...40 percent of the population" and would exclude "the most underprivileged and those with unidentifiable incomes," thus increasing "the imbalance in access to medical care between the urban and rural areas," according to Prof. Harrouchi.

In other words, the recommended solution will reportedly make the problem even worse, and there is reason to question the appropriateness and dependability of such a formula.

This is especially true if one considers that 15.2 percent of all Moroccans are exposed to illness or injury every month, and barely half of them see a doctor or health professional (source: national survey on consumption and households, published in March 1992). This means that the nearly 2 million Moroccans who are in danger of falling ill every month cannot see a doctor. It is materially impossible for them to do so.

Who is responsible? Not the medical, paramedical, or administrative personnel at any rate.

If we look at the grievances submitted by public health personnel (grievances published by the FNSP and SNSP on the eve of their general strike in that sector), we discover that their demands included an improvement in working conditions, a revision of the system of tax levies, a revision of the system of allowances and their inclusion in the retirement pension, a revision of personnel status, the implementation of promotion from the inside, and so on.

Those grievances (and others as numerous as they are important) were presented in a memorandum of demands submitted to officials in the Ministry of Public Health by the officers of the FNSP (UGTM) and SNSP (CDT) on 27 January 1992. They were ignored.

We know the minister of public health to be a man of communication. It is high time that he also became a man of dialogue.

Ibn Sina Hospital Center: Addressing Problems

93WE0433B Rabat *L'OPINION* in French

27 May 93, pp 1, 10

[Article by Dr. Mohammed A. Cherkaoui: "From Unchanged Budget to a Real Assessment of Needs"]

[Text] The Ibn Sina Hospital Center (CHIS) is a medical institution comprising 10 hospitals offering every medical and surgical specialty, 3,300 hospital beds, 183 departments, and 5,300 health personnel.

In 1992, the CHIS also recorded 600,000 visits to doctors, 75,000 admissions generating 850,000 days of hospitalization, 1 million biological tests, and over 32,500 operations and had a teaching staff of 600 and 5,000 students in training.

The CHIS will also reflect the decisions that will be made when its board of directors meets today (27 May 1993). Those decisions will determine the major guidelines for the future of this great medical institution in the kingdom.

The above figures regarding the CHIS, which was granted autonomy in the late 1980's, lead us to make the following observations:

1. This is a medical establishment offering many health services (visits to doctors, hospitalization, biological and radiological tests, and so on) for the entire Moroccan population.
2. It is an institution engaged in training, retraining, and research.
3. It is an organization which, despite its autonomous management, is unable to generate the revenues suggested by budget forecasts and laws. This is due to the sizable influx of indigents not belonging to mutual insurance societies and not covered by any kind of health or sickness insurance.
4. Previous budget forecasts submitted to the Ministry of Finance gave the impression that the budget could be handled simply by keeping the budget items from the previous year unchanged. Is that continuation at the same level, as adopted by finance officials, justifiable, or can it be that the budget forecasts lack objectivity and arguments expressing the real needs of the Ibn Sina Hospital Center?

In any case, the recent establishment of an Advisory Follow-up Committee (CCS) and of Advisory Medical Committees (CMC's) ensures coordination, communication, and a real exchange of information between the users (physicians, surgeons, nurses, and technicians) and the administration. This will clear the way for:

1. Better identification of the problems and of their solutions.
2. A sensible redeployment of human and material resources.
3. A real assessment of needs.

Along with those measures for reorganizing and restructuring one of the kingdom's largest university hospital centers, steps to give social action a new boost are being taken to provide a better working environment.

The Ibn Sina Hospital Center is in a period of transition. It has been given a difficult task: that of being competitive with the private sector in the matter of health services offered to the public.

Pending the existence of widespread health insurance, better collection of accounts receivable, and success in handling its autonomy, the Ibn Sina Hospital Center needs a shot in the arm that will put it back on its feet.

Al Hakim Clinic Dedicated; Services Detailed
93WE0474A Casablanca LA VIE ECONOMIQUE
in French 25 Jun 93 p 33

[Article by A. El Maleh: "Al Hakim Clinic: 'Quality in Safety'"]

[Text] Casablanca has been given a clinic worthy of the name. It is the Al Hakim Specialty Clinic, and it was inaugurated by His Royal Highness the Crown Prince last Wednesday. The cost of this ambitious project, which has now been in operation for eight months, was on the order of 80 million dirhams [DH].

What had been only a dream cherished by 10 or so physicians in various medical-surgical specialties back in the early 1980's became a reality in 1992. The Al Hakim Specialty Clinic, located across from the 20 August Hospital, is a supermodern structure provided with high-quality equipment, and what is more, it meets current international standards. The objective of the group of physicians in question is to provide quality service in a favorable environment.

The Al Hakim Clinic is a six-level building covering 4,500 square meters. It has 81 hospital beds (24 single rooms, 18 double rooms, four suites, four intensive care rooms, 10 intensive care beds, including one artificial kidney, and three "day hospital" beds. Cleanliness is a strict requirement and is perfectly suited to the basic luxury of the setting. All the rooms are air conditioned and have telephones and satellite television. Refinement extends to the meals, which are prepared by a real chef in accordance with menus drawn up by a dietitian to meet the needs of each patient.

The clinic also has six fully equipped operating rooms and a heliport where medical helicopters can land. The project's promoters have put together an infallible organization for handling every emergency situation, whether by day or by

night. About 30 general practitioners provide round-the-clock service with the effective help of an intensive-care physician (24 hours a day) and specialists. To carry out this imposing project, the assistance of banks was needed. And the "hard core" of the clinic was able to win the confidence of the CIH [Construction and Hotel Credit Organization], which made the necessary funds available. The financial package covering the project totals about DH80 million, with most of that amount being guaranteed by the CIH. "A praiseworthy initiative," comments Dr. Bennani, who was one of the kingpins behind the project. Praiseworthy because the financial package for the clinic differs from those put together for hotels. "The bulk of the investment does not consist of the building itself (DH2.5 million, including the massive columns supporting the heliport infrastructure); instead, it is accounted for by the technical infrastructure and patient accommodation facilities."

The main thing is to provide each specialist with properly selected high-tech equipment. And the preliminary results are encouraging. We were told: "We have made a good start, something that is not as difficult as was thought." That being said, Dr. Bennani points out that it is not appropriate to talk about profitability. The primary mission to which the group of physicians running the clinic is devoted is that of "practicing quality medicine in safety."

Emergencies: Example Worth Following

One thing is certain: the gamble by the 30 or so physicians who joined together to ensure the success of this project has paid off. Instead of going their separate ways and setting up dilapidated private clinics, these partners aimed high. The result was the emergence of a one-of-a-kind clinic. Proof of this can be seen in the complete organization of emergency services. That department, consisting of a consultation and treatment room, three beds for patient observation, and a trauma room, has everything needed for handling emergencies. A radiology center adjoining the emergency department has a variety of ultrasophisticated equipment. Besides its standard (conventional) radiology room, it has Africa's only multipurpose radiology room with computerized angiography. That high-tech equipment costs 1.5 times as much as a scanner. In addition, the center has a mammography and panoramic dental radiography room, a scanner room (General Electric's latest compact model), an ultrasound room, and a radiology treatment department. It goes without saying that all that equipment is of great help in the rapid treatment of emergency cases. Even the lab is accessible 24 hours a day. There is easy access to the emergency department (a ramp enables ambulances to unload patients on the ground floor), which also includes rooms for ORL [otorhinolaryngology] (with modern examination equipment that includes a CO₂ surgical laser), ophthalmology (with a room for angiography and treatment with yag and argon lasers), stomatology, and maxillofacial surgery. In short, it constitutes an exemplary intelligent approach to emergency service. Because an environment of its type constitutes a guarantee of quality care.

But the Al Hakim Clinic's performance is not limited to that particular integrated and one-of-a-kind department.

Several other departments also deserve mention, examples being gastroenterology, endocrinology, cardiology, vascular surgery, urologic surgery, neurosurgery, visceral surgery, and orthopedic and trauma surgery. There are also the anesthesiology and intensive care departments. The latter, headed by three intensive care anesthesiologists, has nine intensive care beds (including one artificial kidney bed for treating acute cases) and a recovery room meeting international standards and able to handle four surgery patients at once. The surgical unit is divided into six fully equipped operating theaters.

They consist of a special unit for orthopedic surgery, a unit for neurosurgery and vascular surgery, a unit for ORL surgery, ophthalmology, urology, and obstetric gynecology, a unit for visceral and proctologic surgery, a unit for general endoscopy and cochlear surgery, and a unit for septic surgery.

It should be noted that the gynecology department occupies an entire floor outfitted with four monitored delivery rooms, an intensive care unit for newborns with four incubators (including one for transportation), a unit for premature babies, and a mobile operating theater. The same floor contains a nursery meeting international standards.

Expansion Possible

But the ambitions of the group of people managing the Al Hakim Clinic do not stop there. Supported in their activity by over 100 nurses, the 30 specialists intend to carry their project further by adding centers for pediatric surgery, radiotherapy, and cardiac surgery. Dr. Bennani asks: "Why not cover all diseases rather than continuing to send people abroad for treatment?" Expansion of the Al Hakim Clinic can be foreseen, and it will take place on an adjoining parcel of land. Besides the savings in foreign exchange that it will generate, the project will make it possible for patients who can afford it (including members of mutual insurance societies whose expenses are covered) to receive treatment in the best of conditions—pending the extension of this experiment to other cities and the expansion of social coverage.

SUDAN

Soba Hospital Establishes New Emergency Ward

93WE0435B Khartoum AL-SUDAN AL-HADITH
in Arabic 19 May 93 p 5

[Article by Ikhlas 'Abd-al-Rahim: "Hospital Director: Project Provides Excellent Services to Citizens Residing Near the Hospital"]

[Text] Soba University Hospital has entered a new developmental phase with the first-time establishment of an emergency ward. The hospital is now considered complete. Soba Hospital's emergency ward is considered vital, because the hospital is located on the Khartoum City Highway, a road replete with accidents and injuries.

At the time of his visit to the hospital in late December of 1991, Chairman of the Revolutionary Command Council and of the Council of Ministers, Lieutenant General Omar

Hasan 'Ahmad al-Bashir announced the necessity to expedite establishing an emergency ward. A national committee comprising numerous authorities and headed by the Ministry of Finance was formed for the purpose.

AL-SUDAN AL-HADITH interviewed Soba University Hospital Director Professor 'Abd-al-Hafiz Hasan Khattab, who hastened the interview by saying, "The new emergency [ward] project encompasses all medical specialties. Wards have a capacity of 150 beds. The project cost SP[Sudanese pounds]350 million, while medical equipment and apparatuses required by the department amount to SP5 million."

According to Prof. 'Abd-al-Hafiz, one reason for establishing the emergency ward at Soba Hospital was to provide round-the-clock medical care to citizens of the northern al-Jazira and southern Khartoum areas, which would contribute to alleviating the load on Khartoum Hospital by 80 percent, especially since Soba Hospital has internationally acclaimed reputations for all its specializations.

On the subject of work progress, Prof. 'Abd-al-Hafiz added that work was proceeding according to two phases: Phase 1 ended with engineering studies and drawings under supervision of the Hamdi Consultants Group, while Phase 2 began last May under management of the RC Company. The set period for completing the entire project is 15 months.

TUNISIA

Conference Director Discusses Abuse of Medications

93WE0467B Tunis LE TEMPS in French 4 May 93 p 2

[Interview with Dr. Hassouna Ben Ayed by Myriem Skandari in Tunis; date not given: "Tunisians Consume Too Many Unnecessary Medications"—first paragraph is LE TEMPS introduction]

[Text] Dr. Hassouna Ben Ayed attended the 21st International Therapeutics Congress organized in Tunis by the International Therapeutics Union as the Congress' honorary president. Acknowledged as a "master" in his specialty—internal medicine—by Tunisian and foreign participants, Dr. Ben Ayed agreed to answer questions from LE TEMPS.

Skandari: From a medical and social point of view, what did the congress achieve?

Ben Ayed: This congress on therapeutics, i.e., the treatment of diseases, is an international congress and this is the first time that it is held in Tunis, under the patronage of the president of the Republic, who personally helped and encouraged the organization of the congress. Therefore, the congress is of medical and scientific interest. It enabled us to compare our knowledge of several diseases, including osteoporosis, which is a disease caused by a decrease in the bone substance of bones and a cause of

rheumatic diseases, invalidity, and locomotor handicaps, especially in elderly women. It also occurs in men, but is not as serious then. Hypertension was also considered at the congress, because it is a disease that affects 12 percent of the Tunisian population. Multiply that by 8 million people and you will realize that it is too much. In 80 percent of the cases, hypertension is due to various factors, such as heredity, stress, diet, obesity, or diabetes; and in 20 percent of the cases it is due to other diseases, especially kidney and endocrine diseases. Other themes were also considered by congress participants, for instance contraception, which is of great interest for Tunisia.

Male contraception is making progress, but it is still more complicated than female contraception. There are few methods to provide temporary contraception for men. Vasectomy is final, as is tubal ligation. People do not accept it easily, especially men.

There is also antibiotic therapy, which is the treatment of infectious diseases through antibiotics. One-fourth of the Tunisian budget earmarked for medicines is spent on antibiotics. It is important from an economic and social point of view. The problem of pain was also considered.

Until now, in French-speaking countries and in Tunisia, the treatment of pain has not received much attention, contrary to what is the case in Anglo-Saxon countries, which have developed pain therapy. In Tunisia, pain is not considered very important, because people believe that it is a banal symptom, or even a "beneficial" one because, in our culture, suffering and bearing pain is proof of force, virility, and faith. On the other hand, in Anglo-Saxon countries, much more importance is given to the efficient treatment of this sign of illness.

All these subjects were treated in a worthwhile manner, at very a high level. There was a large attendance at the congress, both national and international.

Skandran: Is the level of Tunisian physicians the same as that of European and American physicians?

Ben Ayed: No problem in this respect. The only problem is a problem of means. On a purely scientific level, our physicians are as good as any.

Skandran: How will this congress affect citizens as a whole, and the rural population in particular?

Ben Ayed: There will be no direct impact. The impact will be indirect, through physicians and health-care personnel, and in proportion to available means.

In Tunisia, we have significant means, but they are not used as they should. One of the objectives of this congress was to rationalize available means and make good use of them in the treatment of disease.

Skandran: Are all Tunisians covered by social security, which gives them access to advanced medical care?

Ben Ayed: It is the Tunisian health system sector that determines coverage. But the problem lies rather with the

availability of medications. We should say that, recently, in Tunisia, there has been a shortage of medications because the organization of the Tunisian pharmaceutical system is not working properly. Especially when it comes to setting up laboratories to produce medications; much remains to be done at marketing level.

Actually, Tunisian pharmaceutical products are packaged medications; most of the raw materials are imported. Tunisia just packages them, i.e., we import an active principle, a raw material, and turn it into tablets or solutions.

Skandran: What message would you send after this congress?

Ben Ayed: As a physician, where therapeutics are concerned, we should carefully monitor medication consumption. In Tunisia, there is an excessive consumption of medications. It is bad from an economic point of view, because at least three-fourths of the medications listed on a prescription are not needed, and in addition some of them may be dangerous. We now have what is called iatrogenic diseases (diseases due to medication). Medications can cause allergic reactions, they can be toxic and affect the liver, the kidneys, the stomach, etc.

In Tunisia, we are now planning the creation of a pharmaceutical monitoring department in Tunis, probably at the Charles Nicolle Hospital. There will be an entire department to monitor the side effects of medications.

Skandran: What do you think of homeopathy?

Ben Ayed: If it does not any good, it also does not do any harm, because it is a method that does not use (or uses very little) active principle. Mostly, it has a placebo effect, i.e., an emotional effect. Human nature is complex and, next to the physical and psychological sides, there is the side of emotion, faith, belief. It is a domain that still remains in the dark.

Skandran: What do you think of hormone treatments?

Ben Ayed: Hormone treatment is simple when there is a deficiency in one or several hormones. The human organism contains at least 50 hormones. If there is a deficiency, the missing hormone must be replaced by an artificial hormone. What is bad, is excessive dosage and unnecessary hormones.

Skandran: What are the risks in these cases?

Ben Ayed: There are risks, of course: for instance, some hormones will promote cancer; excessive use of some hormones will cause skin diseases or blood pressure diseases. Some people take thyroid hormones to lose weight. That is very bad, because this hormone has detrimental effects on the heart, on blood pressure, and on muscles and bones.

Hormones prescribed at the menopause are a good thing if they are taken under medical supervision, because they

can have detrimental effects on blood pressure, diabetes, and certain forms of rheumatism.

Pharmacists' Council Focuses on Law, Union Effort

93WE0467C Tunis *LE TEMPS* in French
13 May 93 p 3

[Article by A. Krifa: "New Image for Pharmacists; 200 Pharmacists Meet in Sousse for National Council"]

[Text] Sousse—The all-powerful corporation of the 2,000 Tunisian pharmacists just renewed its national council for three years; as is known, the CNOPT (National Council of the Order of Pharmacists) that was just elected with 681 votes out of 750, and some 50 invalid votes, will have for its task to defend the "moral rights" of a profession that handles an annual budget of about 150 million dinars, including chemicals as well as medications, pharmaceutical raw materials as well as medications covered by the National Social Security System. In cooperation with the state, the council will ensure that regulations concerning medications are kept up to date and applied.

Some things will change.

"The idea that people have, that the pharmacist is just another merchant must change," a new CNOPT member insisted. "Without overlooking this aspect," he added, "the public must recognize the pharmacist's social role: it is a small business that provides jobs for its employees."

"Its economic character is not insignificant. The pharmacist must continue to provide advice on health, distribute medications, according to a modern approach, and provide therapeutic follow-up, the clinical pharmacy that should be developed in hospitals and at pharmacies."

Meeting in Sousse nonstop for the whole of Tuesday and until early morning hours, the pharmacists expressed their hope to see their corporation better managed; as is known, differences were made public and resulted in "resignations" and "votes of sanction." The reconciliation of the pharmacists' body will therefore become the priority of the new council. This will put the organization in a better position with respect to the Ministry of Health, so that their relations may be devoid of any subjectivity, people pointed out.

Another item on the agenda is the revision of the organic law, which dates back 20 years.

The numerus clausus was also discussed. As is known, it came from the Ministry of Health, and the CNOPT (the former one) had "no part in it"; the sharing of zones in large town where there are several delegations, as compared with rural areas; the famous "waiting lists" that were all-out in favor of the unemployed: "By raising the question of the unemployed, they created unemployment," one delegate observed, since "working in parallel was indirectly encouraged." The true problem is to find jobs, not just pharmacies for the unemployed. It was pointed out that the new proposals will take into account the necessary improvement of the conditions of some pharmacists, who have difficulties, and improve the distribution of revenues.

Working toward a single union is another of the council's goals.

Its multiple tasks also include improving the living conditions and career prospects of university teachers and hospital pharmacists, and pharmaceutical services. Improved collaboration and stronger relations with the Society of Pharmaceutical Sciences are under consideration.

It was also pointed out that wholesale distributors will need a numerus clausus in order to achieve better regional distribution; the CNOPT may be given inspection rights, but the law of the market prevented the question from being discussed.

Some speakers referred to Disciplinary Council decisions; the new CNOPT promised to be impartial in its judgements.

[Box, p 3]

Members of the New Council

Were elected: Khessairi Habib, Jalal Abdallah, Krifa Farhat, Lahdili Abderrazad, Khabthani Taoufik, Hamdi Hichem, Naas Ali, Ben Zaid Moncef, Ennaifar Ali, Ouahchi Ali, Bouden Taoufik.

The new council's task distribution will be published very soon.

Canadian Red Cross Extends \$2 Million to Baltic Countries

*WS0306100893 Tallinn BNS in English
1251 GMT 2 Jun 93*

[Text] Moscow, June 02, BNS—The Canadian Red Cross is planning a USD 2 mln humanitarian aid operation in Lithuania, Latvia, and Estonia.

BNS was told by officials in the Moscow branch of the International Federation of Red Cross and Red Crescent Societies that in June 1993 one year medical supplies will be delivered to children's hospitals and wards in the three Baltic states.

The supplies will be sufficient for 5797 beds (70 hospitals) in Lithuania, 2090 beds (27 hospitals) in Latvia, and 981 beds (31 hospitals) in Estonia.

A shipment of medicinal drugs will arrive in St. Petersburg June 16 for delivery to Vilnius, Riga and Tallinn.

The Canadian Red Cross has been aiding the Baltic states for a second year. Last year medicines were supplied for 10,400 beds in the three countries.

The new operation is part of the Solidarity program run in the former Soviet Union by the Canadian Red Cross and its contribution to the International Red Cross's efforts to help socially ill-protected groups in the former USSR by sending them medicines and medical equipment.

Upjohn Grants \$275,000 in Free Antibiotics, Supplies

*WS0306131193 Tallinn BNS in English
1949 GMT 2 Jun 93*

[Text] Tallinn, June 02, BNS—The Upjohn Company, a leading U.S. drug manufacturer, today formally handed over 3.5 million kroons (USD about 275,000) worth of antibiotics and lab equipment as a gift to Estonia.

The gift includes 35,000 packages of Dalacin, which covers Estonia's one year's need for this antibiotic and enables to treat up to four thousand people suffering from serious infections, Vello Ilmoja, departmental head at the Estonian Ministry of Social Affairs, said.

The devices and equipment, including computers, come from the Institute of Pharmacology of Goteborg University, Sweden, the equipment will be given to Tartu University and Estonia's medicine school.

Heinz Marin, the representative of The Upjohn Company in Scandinavia, said the company's attention to Estonia was not just accidental. He said the company wants to start close scientific cooperation with Tartu University, where the U.S. company considers respective work is done on a high level. Martin said new medicines are to be tested in Estonian clinics already late this year.

The antibiotics received as gift will be distributed between all hospitals and given to patients free of charge. Ilmoja is to keep the U.S. company informed about the distribution on a weekly basis.

The Upjohn Company was founded in 1886 by the famous American Pharmacist William Upjohn. The company at present has over two hundred representations worldwide and does business worth USD over 3 billion per year. The company opened its information office in Estonia last year.

EC Plans To Assist Reorganization of Health System

*AU3105192393 Bucharest ROMPRES in English
1647 GMT 31 May 93*

[Text] Bucharest, ROMPRES, 31/5/1993—A delegation of experts and consultants in medicine, headed by Joan Rovira, have arrived in the Republic of Moldova on a second fact-finding visit about the health conditions in Moldova.

The delegation's interest lies mainly with the technical endowment of the medical sector. During their first tour the experts drafted a programme of assistance for the health system in the Republic of Moldova over the next 2-3 years, following three principal lines of action: financing the health system, the reorganization of hospitals and the up-dating of first-aid techniques.

The programme is to be completed during a third mission and the Community will support it with 1.5 million ECU [European Currency Unit], MOLDOVA PRESS informs.

Medical Statistics Bureau Reports on Birth Rate

*AU0907184593 Chisinau BASAPRESS in English
1731 GMT 8 Jul 93*

[Text] Chisinau, BASAPRESS, 8/7/1993—According to the data released by the Bureau of Medical Statistics of the Ministry of Health of the Republic of Moldova during the first five months of this year the index of natality in republic reached 5.9 point (for one thousand of citizens) including in May the birth of 5,639 children. Child mortality measured during the same period of time was 20.7 points for one thousand born children. This represents the highest in the whole of Europe. Gheorghe Rusu, the head of the Bureau of Medical Statistics reported that social processes are characterized by social inertia. At present, we cannot notice an increase in natality and consequences of this period will be seen only after three-four years.

Gas Condensate Blowout Kills One at Astrakhan Well Complex

LD1006213593 Moscow Russian Television Network in Russian 1900 GMT 10 Jun 93

[Video report by correspondent O. Sosnovskaya from Astrakhan: From the "Vesti" newscast]

[Text] An alarming report reached us today from Astrakhan.

[Sosnovskaya] One person was killed and two are in hospital as a result of a blowout of gas condensate at one of the wells of Astrakhangazprom. According to preliminary data, the cause of the accident was a gross breach of technological discipline.

Even a week prior to this accident ecologists warned that close attention should be paid to such a dangerous enterprise, the more so as 15 underground gas condensate reservoirs are situated on the field, 6 of which, according to technological parameters, have become unstable and are no longer airtight. Nuclear decay products have accumulated at the bottom of the huge reservoirs, which were created at the time by means of underground nuclear explosions, and there is a threat, in the ecologists' view, that radionuclides may seep into the groundwater, which is the source of drinking water.

However, while the procuracy is carrying out an investigation, the oblast committee for ecology and the preservation of natural resources is requesting that the Supreme Soviet carry out an independent state examination in order to allocate additional funds for conducting non-departmental supervision of the gas complex. [Video shows around 10 high chimneys and the area of the gas condensate field]

Intensified Child Vaccination Program Planned
PM1907133793 Moscow IZVESTIYA in Russian 17 Jul 93 First Edition p 8

[Svetlana Tutorskaya report: "Russian Government Adopts Program To Curb Infectious Diseases"]

[Text] Sergey Semenov, first deputy chairman of the State Committee for Sanitary and Epidemiological Supervision, has addressed the Russian Federation Government Presidium. The main element in the new vaccination program covering the period 1993-1997 is the decision for the program to extend to at least 90 percent of all children.

This is of fundamental importance since that was after all the case 15 years ago: That is the only way to create collective immunity and save children. We would remind you that over 90 percent of children in the United States and Britain, for instance, are vaccinated against diphtheria. There too there have been campaigns against the vaccinations, several dozen children have been lost, and they have long since come to their senses and returned to normal practice. We are still unlikely to attain that level in the light of the irresponsible statements in the press by unknowledgeable authors. Yet in 1975 not a single child case of diphtheria was recorded in the former USSR.

The program's second task is to boost the quality of the vaccinations. This applies above all to measles vaccine. In the future there are plans for this vaccine to be produced in conjunction with the major French firm Pasteur-Merieux, a firm in which the well known Russian scientist Ilya Mechnikov collaborated with Louis Pasteur early this century.

But it is of equal importance to scrupulously comply with all the conditions for the storage and shipment of vaccines.

Whereas last year the incidence of diphtheria doubled and the figure rose by another 60 percent in the first five months of this year, refusal of the vaccine being to blame. That is the main reason for the incidence of measles doubling. But there is another factor: The measles vaccine is very heat-sensitive.

As well as explaining these tasks Sergey Semenov stressed that sanitary and epidemiological supervision must be stepped up and more attention paid to basic research. The point is that we have not developed vaccines against a number of contagious diseases.

Balding Disease Recorded in Lvov Oblast
AU2307180893 Kiev MOLOD UKRAYINY in Ukrainian 22 Jul 93 p 1

[Unattributed report published under the rubric "Fact"]

[Text] In the village of Batyatchi, Kamiansko-Buzky Rayon of Lvov Oblast, several cases of alopecia (balding) in children have been recorded, as was the case in Chernivtsi in 1988.

Academy of Sciences Official on Chernobyl
WS0306084593 Kiev KYYRIVSKA PRAVDA in Ukrainian 23 Apr 93 p 1,2

[Interview with Viktor Baryakhtar, vice president of the Ukrainian Academy of Sciences and head of the presidential commission on nuclear policy issues by H. Pyvovarov: "The Global Catastrophe Calls for New Thinking,"—correspondent's questions are printed in boldface]

[Text] **Pyvovarov:** Viktor Hryhorovich, you took part in the operation to liquidate the Chernobyl aftermath from the very first hours of the meltdown, and were involved in solving a variety of problems facing the scientists. Because Chernobyl has remained your major concern to this day, I would like to dedicate our conversation primarily to the issues related to the accident. The perspective of seven years that have elapsed since the tragedy opens a better view on our successes and failures in solving those problems. So my first question is: What do you think we have done that can be put on our list of credits?

Baryakhtar: Chernobyl has generally been acknowledged as a global tragedy. Mankind found itself faced with this dreadful calamity for the first time in its history. Of course, we had no antidote to it. I think it was a well-timed decision to impose a 30-km exclusion zone and then move its 96,000 residents out of its boundaries. Later on, the unique Ukrainian Radiation Medicine Center was created, designed to monitor health conditions of all those afflicted by this wicked disaster. We should also take credit for our role in classifying the resulting diseases.

We came up with the concept of the contaminated area, which laid the groundwork for the people-oriented "Chernobyl laws." The academy's scientists have put forth much effort drawing up an ecological map of the 30-kilometer zone featuring particular sites hazardous to people's

health and lives that were affected not only by radiation, but by equally dangerous chemical and heavy metal contamination.

Our institution teamed up with the agricultural academy in a project aimed at solving agricultural problems that came to the surface since April 1986. We have developed a clear strategy as to how to practice farming in the contaminated area. Among others things, we have discovered which fertilizers to use in order to fuse radionuclides and impede their penetration into the plants from the soil.

Obviously, further large-scale nuclear cleanup measures are impossible without the relevant network of monitoring equipment. Over the past three years, the Ukrainian Academy of Sciences developed a sufficient stock of it. Let me only mention the unique complex of spectrometers, devices for measuring gamma- and beta-fields. The task now is to initiate their mass production.

We are collaborating with the Chernobyl Ministry across the entire range of problems.

Immediately after the Chernobyl catastrophe, there were no methods of discharging radionuclides from the human body. Now, we have invented a wide variety of absorbents and medications that protect one from radiation and strengthen the immune system. All of this has been made with a lot of consideration given to our raw materials potential, so we will not have to import any components.

Among the technical problems which we have successfully solved is the isolation of the sarcophagus, the most dangerous nuclear facility in the world. Whatever you may have heard about it, it was built in extremely difficult and hazardous conditions in record time—half a year. Its construction has displayed the numerous advantages of our industry as well as the qualities of our people. First of all, there is the technical design—unparalleled worldwide—which was invented and developed in several months by scientists from St. Petersburg. Besides, no task as challenging has ever been implemented in such strenuous and extraordinary conditions. Despite all the odds, the sarcophagus, with all its dust-suppressing and monitoring systems that were introduced a little later, does perform its main function—sheltering the environment from radionuclides.

Although the blueprint foresaw a 30-year lifespan for the sarcophagus' operation, experts have come to the conclusion that mechanical wear will come much sooner. Our government has announced an international bidding contest to attract the best project that will make the No. 4 reactor an ecologically safe facility. More than 300 tenders from different countries have already been received.

Pyvorov: It is known that the cleanup operations were not devoid of quite a number of mistakes. What were they?

Baryakhtar: Both technical and political. Because of my engineering background, it is easier for me to talk about the former ones. Based on the knowledge of hydrodynamics acquired during the Chernobyl project, it turned

out that we should not have installed so many underwater "traps" in the Dnieper River and the Kiev Sea. We mistakenly calculated that this would impede the movement of radionuclides down the Dnieper. At that time, however, no one could know that Chernobyl-emitted radionuclides had different configuration and physical and chemical properties. The same about the Dnieper currents.

Other than expected were also the results produced by construction of the "wall in the ground"—a much-talked-about project at the time. This colossus, running 30 meters down in the ground, was supposed to separate the underground water from radioactive elements. Only later, we have discovered that there were two reasons why it should have never been constructed. First, the migration of radionuclides in soil is much slower than expected—over the past seven years, they affected only a two to five-centimeter thick ground layer. Second, the ground waters quickly rose to the ground surface, making the "wall" completely ineffective without a water-pumping system.

Now there is no danger of radionuclide contamination of the water—they will decay before they reach the main underground streams.

We should not have piled so much lead and sand on the bare reactor during the first weeks of the catastrophe. We had no idea that the way the reactor's lid, the famous "Olena," was positioned, everything would tumble down into the destroyed reactor room. To make it worse, the lead had evaporated, polluting the environment. Have you heard that the population of the ancient Rome deteriorated thanks to the lead water pipes? It is now that we came to understand that other methods, if any at all, should have been applied to quench the nuclear "fire."

Pyvorov: You said there were also political mistakes. Can you specify what?

Baryakhtar: Very traditional ones, going along a traditional pattern from the old days: discharge, instigate proceedings, put on trial...I cannot help mentioning here the role of the Ukrainian Supreme Council commission on catastrophic Chernobyl issues. When a blueprint for the Vektor plant, an enterprise meant for utilizing radioactive wastes massively stockpiled in the zone, was in the works, the commission announced that it was designed to dump nuclear wastes from all over the world in Ukraine. So the plant's construction, badly needed for the elimination of 800 dump sites, was stopped. In my opinion, this was a classic example of a glaring political blunder.

Pyvorov: Seizing the opportunity, I want to ask you a question which, though not directly connected with Chernobyl problems, still has a lot to do with the catastrophe. It would be interesting to hear your point of view on the future of Ukrainian nuclear engineering—an issue of considerable political and socioeconomic significance.

Baryakhtar: My position after the Chernobyl meltdown remains unchanged: unless properly equipped, one cannot utilize so immense a force as nuclear engineering. On the other hand, it would also be a mistake to entirely abandon

it and rely on the thermoelectric engineering. If we consider ourselves a civilized nation, then we should upgrade our nuclear engineering to an international level. At present, it accounts for 30 percent of the electric power generated in the republic. What can replace it? Everyone knows where we stand with organic power sources—oil and gas. Every year, we need 30 billion cubic meters of natural gas alone. As for the oil, we receive one-half or one-third of the required amount, while one nuclear station spares an equivalent of 2 million metric tons of organic fuel.

Now, let us make some calculations. It takes 10 to 15 years to build a coal mine, and about seven years for a thermoelectric power station. At the same time, at the Khmelnytsky, Zaporizhzhya, and Rivne AES [nuclear power stations], three modern nuclear units remain "frozen," which can be activated within six months to two years. So what option should we prefer? We need the nuclear engineering if only because we lack power sources, which can only be imported for hard currency from the West. Incidentally, we could import them to the West, where one kilowatt-hour costs five cents. I should not have remind you how desperately we need the hard currency; just convert it into rubles. It is my sincere conviction that it will be impossible to recover our nose-diving economy without nuclear engineering.

Let us take the example of France and Japan. In 1973, after the first energy crisis, France found itself faced with the same problem: What direction of power engineering development should be chosen? Just like Ukraine, they are rich in coal and uranium, but short of other power sources. I have spent much time working in the Donbas, and believe me—it is extremely difficult and dangerous to extract coal from a depth of 1,000 meters. France went for the nuclear energy option, which currently represents 70 percent of energy generated nationwide, leaving 30 percent for coal power engineering, now regarded as a reserve energy source.

I always believed, and still do, that the old Soviet idea of filling Ukraine with nuclear stations—with their 42 units—is totally inadmissible.

Pyvovarov: But after the Chernobyl accident, it is hard to convince people in favor of nuclear technologies.

Baryakhtar: I am not arguing that it is not. However, the Ukrainian industry, in cooperation with the West and Russia, is capable of bringing security at our stations up to international standards in five to seven years. And two or three years of really hard work could solve all the major, most dangerous problems. According to Western experts, the station personnel meet the highest requirements and are as qualified as experts from Germany, the United States, and France. It would not be wise to lose this.

Pyvovarov: People have objections to nuclear engineering also in terms of health and ecology.

Baryakhtar: Is thermal engineering any better? I have already mentioned the hazards of digging coal from a

1,000-meter depth. They are as grave as radiation and cause numerous incurable diseases. The kind of thermal engineering, based largely on the coal, that we have is not suitable for Ukraine. It induces acid rains that are harmful for the environment. The Ukrainian coal contains 2.5-3 percent of sulfur. And the process of burning hundreds of tons of this coal results in massive sulfuric anhydride releases, turning our thermal stations into producers of sulfuric acid and acid rain.

Pyvovarov: What is the main conclusion that you have drawn from the Chernobyl catastrophe?

Baryakhtar: We have a better understanding of natural laws and the consequences of human activities. In this sense, we should learn a good lesson from this tragedy, which requires a new level of thinking.

Border Closed With Tajikistan, Afghanistan Due to Cholera

LD2807223393 Moscow Russian Television Network in Russian 1900 GMT 28 Jul 93

[From the "Vesti" newscast]

[Text] Uzbekistan closed its border with Tajikistan and Afghanistan as of yesterday. This measure was evaluated by the head of the UN mission in Tajikistan as an attempt to halt the spread of cholera. Last week several dozen cholera cases were reported in Tajikistan and Afghanistan.

Nordic Pharmaceutical Companies in Marketing Venture

934K1272C Helsinki HELSINGIN SANOMAT in Finnish 15 May 93 p B 13

[Unattributed article: "Tamro and One of ADA's Companies Gain Wholesale License in Estonia"]

[Text] Tamda, the company jointly owned by Tamro and the Swedish corporation, ADA, has received a license to wholesale pharmaceuticals from Estonia's Ministry of Health for its Tallinn-based subsidiary. Tamda also owns AS Pharos, a wholesale medicine marketing company operating out of Tartu.

Tamda also has subsidiaries in Latvia and Lithuania. In addition to this, the company has signed agreements with both countries for cooperative ventures in the health care field.

Finland's Oriola To Market Pharmaceuticals

934K1272Y Helsinki HELSINGIN SANOMAT in Finnish 17 May 93 p B 10

[Unattributed article: "Oriola Receives Wholesale License in Estonia"]

[Text] Orion's Estonian subsidiary, AS Oriola, has received a big wholesale marketing license for medicine from the Estonian Ministry of Health. Now the company can sell medicines directly to Estonian pharmacies and hospitals. Oriola has been operating in Estonia since last fall.

Finnish Company Joins in Tallinn Clinic Venture
934K1272Z Helsinki HELSINGIN SANOMAT
in Finnish 19 May 93 p 9

[Unattributed article: "Finnish-Estonian Clinic Opened in Tallinn"]

[Text] A Western-style medical clinic jointly and equally owned by Finns and Estonians opened for business in Tallinn. The services of the clinic are projected to be primarily for Finnish tourists and the staff of Finnish businesses. The clinic will also take Estonian patients and bills are payable in Estonian kroons.

Dr. Pentti Parkkinen, operations manager of ESMED's Finnish partner, Kannelmaki Clinic, says that the pricing of services at the Tallinn clinic has been according to what KELA insurance will pay. An X ray in Tallinn will cost under 100 markkas, whereas a private practitioner's office in Finland will charge 340 markkas for an X ray.

A Finnish citizen abroad will receive the same compensation from KELA for medical, laboratory, and hospital care as he would for the same services in Finland. For example: The payment for an office visit to a general practitioner is 37 markkas plus, and to a specialist almost 56 markkas.

The clinic is located in the city district called Oismaki and it employs 15 doctors of whom three are Finns. The most important outpatient specialist services are provided, including dentistry.

Within the former Soviet Union there are at least two previously established clinics that are approximately half-owned by Finns. One of these operates in St. Petersburg and another in Tallinn. The Tallinn clinic has reorganized and has gone into business anew entirely staffed by Finns.

Helsinki University in Tallinn Clinic Venture
934K1713B Helsinki HELSINGIN SANOMAT
in Finnish 25 Jun 93 p 8

[Article by Tuomas Naveri: "Women's Clinic To Sell Medical Care Services in Estonia"]

[Text] The HYKS (University of Helsinki Central Hospital) Women's Clinic and Piritä, Inc., which operates in Tallinn, have signed an agreement regarding the sale in Estonia of services offered by the women's clinic.

HYKS has not previously made any agreements with foreign firms.

"Piritä will purchase services for which the demand is less than the capacity would allow. We have yet to reach agreements with other clinics of the HYKS," says the operations chief of the Tallinn medical clinic, Minna Hyrskö. Piritä is 90 percent owned by Finns.

"We cannot, naturally, bypass any patient queues with money," adds Hyrskö.

Hyrskö predicts that the women's clinic services there will be a demand for are the polyclinic and obstetrics.

"We are in the process of developing a price list for HYKS services. The delivery of a baby costs, for example, 11,500 markkas. This amount is the average price of all deliveries at the Women's Clinic," explains Hyrskö.

According to Hyrskö most of the clients will be affluent Estonians and foreigners either living or traveling in Estonia.

"Our goal is to have at least one patient from Tallinn per week come to the Women's Clinic," Hyrskö says.

The agreement just reached is not financially significant for the Piritä doctor's clinic, but Hyrskö considers it to be an important new service form.

The operations manager of the HYKS, Juhani Bruun, considers this agreement to be an experiment that HYKS will base its next year's decisions on whether to adopt similar, additional agreements or not.

Bruun estimates that the activity now commencing will have sales amounting to 700,000-800,000 markkas.

"If this type of operation proves successful, then, for example, in St. Petersburg there is potential for expanding it. It is important to go out and market Finnish know-how abroad," elaborates Bruun.

BELGIUM

Cabinet Authorizes Talks With EBRD on New Loan

AU1907173693 Sofia BTA in English
1640 GMT 19 Jul 93

[Text] Sofia, July 19 (BTA)—At a meeting today the Council of Ministers authorized the minister of transport Kiril Ermenkov to conduct negotiations with the European Bank for Reconstruction and Development in Luxembourg on the signing of an agreement on an ECU 60 million loan. The loan would fund an air traffic integration programme.

The government amended its decree of March 29, 1993, on measures to prevent foot-and-mouth disease and allowed the transit passage through Bulgaria of some farming goods from Turkey.

The cabinet approved an amendment to the rules of implementation of the Customs Act, according to which confiscated or abandoned automobiles can be given for use to government departments.

The Council of Ministers decided to transform nine state-owned companies into state-owned joint-stock companies.

The government allowed three Turkish warships to call at the Sozopol and Varna ports on the Black Sea and one American and two Greek warships to visit the Black Sea port of Burgas.

The Council of Ministers discussed a draft law on health care. It decided to move the draft at the National Council for Tripartite Cooperation (a social cooperation body of the government, trade unions and employers). The decision was motivated by an official release of the Press Office of the Confederation of Independent Trade Unions (KNSB), one of the largest trade union amalgamations, circulated today, which said the KNSB opposed "the practice to work out and enter in parliament extremely important bills concerning industrial relations and living standards, without discussing them in the council."

DENMARK

Greenland Agencies Announce Survey, Nurse Plans

Large-Scale Health Survey Set
93WE04824 Copenhagen GRONLANDSPOSTEN
in Danish 19 May 93 p 9

[Unattributed article: "Health Profile for Greenland"—first paragraph is GRONLANDSPOSTEN introduction]

[Text] The Directorate for Health and Environment initiates a large-scale survey of health conditions in Greenland.

The public health service's goal is to lower the infant mortality rate and the nonnatural death rate, to reduce

alcohol consumption, and to prevent cases of venereal disease. But how do people really look at these issues?

In the near future 3,200 people will be invited to tell, among other things, what they think about the public health service, about what measures should be taken, about what diseases they have suffered from, and whether they are suffering from diseases for which they do not consult a physician.

The survey "Health Profile for Greenland" is supposed to result in a statement on the health of the population of Greenland. A similar survey in Denmark in 1986/87 showed that there was a much higher prevalence of musculoskeletal disease than had been assumed, and that this was by far the most common problem among people. That caused the then government to change its policies in that area, and the survey was frequently quoted in the health policy debate. That is the hoped-for result for this survey also.

No Knowledge

"We will try to uncover health conditions that are not presently known. Our goal is to find out whether increased effort is needed in the fight against some diseases that might occur more frequently than previously supposed," we are told by Dr. Peter Bjerregaard from DIKE (Danish Institute for Clinical Epidemiology). Peter Bjerregaard, on behalf of DIKE, is responsible for the scientific part of the survey, and he constitutes the small department for research on Greenland within DIKE.

"Politicians have some idea of the condition of people's health today, but in reality nobody has any concrete knowledge in this area. The survey is intended to give politicians a basis for creating quality health policies," Peter Bjerregaard says.

The survey guarantees anonymity, but experience from similar surveys shows that not everybody wants to participate; that is why Peter Bjerregaard thinks that about 2,500 will return the questionnaire. Women among the 2,500 will be asked about any potential children's diseases. Should one ask both men and women about children's health, the children would be overrepresented in the answers.

Interviews

The plans for the "Health Profile for Greenland" started as early as a year ago. A questionnaire of 130 questions has been developed and is almost ready to be printed. The list of questions have been taken, among other things, from similar surveys in Denmark and Canada, but naturally also includes questions relevant to Greenland.

The questions have been discussed by participants from Ilisimatusarfik, the National Medical Office, the Social Services Directorate, the Directorate for Health and Environment, and DIKE. The questions have been translated into Greenlandic, retranslated back into Danish and then revised in order to avoid any differences in meaning.

The survey will primarily be conducted through interviews regarding health, the way of living, and the use of health services, while questions of a more personal nature have been framed in a separate questionnaire to be handed out to the participants.

Thirty students from Ililismatusarfik and Ilinniarfissuaq have taken a course in interviewing techniques in which they were given a theoretical overview of the questions, as well as having interviewed each other and persons they did not previously know. This course resulted in some changes in the questions asked in the questionnaire.

130 Questions

"Most of the 130 questions are simple, but among them are some more complicated ones concerning, for instance, chronic diseases," Peter Bjerregaard says.

Eight percent of the population in the cities will be involved in the survey, while 20 percent of the population in half of the rural villages will be offered the possibility of participating in the survey. All of the counties, with the exception of Ivigtut, will be included in the survey.

The 30 students will use their summer holiday to do the interviews.

"It has been quite a jigsaw puzzle to make all the pieces fit, but it looks like the whole affair will be ready by the summer holiday season," Peter Bjerregaard says.

"It is important for us that the students do not know the people they will be interviewing. This is not a big problem in Nuuk where there are so many people, but it might become a problem in a smaller village or rural area. It is not appropriate for the students to interview a friend or a family member because the survey should be as anonymous as possible. The reason is to avoid getting a wrong answer, because there is always the risk that a person will give a different answer to someone they know as opposed to a stranger," Peter Bjerregaard says and underlines that there will be only numbers and no names in the questionnaire.

Voice Your Opinion

"Finally, one is allowed to say what one wants to about the Public Health Office," Peter Bjerregaard states.

"Sure, the survey has been ordered by the Directorate for Health and Environment, but the Directorate has no influence on what the outcome will be. It is DIKE which will evaluate the answers and which has the scientific responsibility for the survey."

"In other words, the Directorate cannot ask me to delete something from the survey should it prove embarrassing to publish it," Peter Bjerregaard says.

The Directorate for Health and Environment has applied for money for the survey from the Karen Eilise Jensen Foundation and has received 4 million kroner. This will cover three and a half year's work with the survey, travel expenses, and pay for the interviewers and materials.

Peter Bjerregaard is counting on all responses to be collected in September. Then they will be coded and systematized, but it will not be until January that the responses will be computerized so that the analysis can start.

"The first public report of the main results should be ready by next September," says Peter Bjerregaard, who has other ongoing research projects beside the project "Health Profile for Greenland."

"There will be material for studies for many years," he says.

Improved Nurse Training

93WE0482B Nuuk GRONLANDSPOSTEN in Danish
19 May 93 p 8

[Unattributed article: "Greenland Nursing Education"—first paragraph is GRONLANDSPOSTEN introduction]

[Text] The coming nursing education can be used anywhere in the world.

The new nursing education program is presently admitting new students and will be on an equal footing with similar education throughout the Nordic countries. However, its structure is still a little bit different. It is in fact better.

Many nurses in this country work independently and in small units where there is no other health personnel. The Directorate for Health and Environment has therefore found it appropriate to include extra training in obstetrics as well as management and administration. In this way future nurses will feel better equipped to be, for instance, the only person with health training in a village.

Moreover, the new nursing education program has been set up in such a way that the students can stop their education and call themselves health assistants after finishing the second part, which is two years after the beginning of the training.

Course of the Training

The nursing education program consists of three levels. The first level starts with a 12-month theoretical course with classes in general nursing, health sciences, the humanities and social sciences. This theoretical course is followed by a four months' internship as a general nurse in the primary health services, of which two months should be served in a rural area.

The second level includes a five-month theoretical course consisting of nursing and other health sciences, natural sciences, humanities and social sciences. This theoretical course is followed by a seven-month internship consisting of specified nursing functions in the secondary health services. After completion, one can be called a health assistant.

The third level consists of a 10-month theoretical course in which the students again study the subjects of nursing, health sciences, natural sciences, and social sciences. The theoretical part is followed by a 10-month internship

consisting of specific nursing functions and work as a nurse in the secondary and/or primary health services.

Secondary Education

The nursing education program is a secondary education program, and it will take four years to complete—three months more than it does, for instance, in Denmark. That is due to an expanded curriculum in obstetrics, management, and administration. In order to be accepted for this nursing education program one has to have completed either the Greenland high school education, passed the higher preparatory exam, or have completed some other relevant education, and the applicant must be bilingual at the time of acceptance.

About 120 applications have been received for these new educational programs, and 18 students are expected to be accepted 1 January 1994 for the nursing education program.

Health assistants have been given an offer of qualifying secondary education. Eighteen students are expected to be admitted to this course of education 1 March 1994 and the first Greenland nurses will have finished their training in the spring of 1996. The health assistants who start this training will receive basic pay while those students starting on a completely new course of training will, like the rest of the students, receive educational support.

"The nursing education is an educational program that competes with others for the best high school students. But all students do not fulfill the requirements for admission. That is why we are looking into the possibility of creating a year-long preparatory course for people wanting a secondary education, but who do not fulfill the necessary requirements. This is a question that the Directorate of Education will evaluate," says consultant Hanne Sorensen from the Directorate for Health and Environment.

Center

"The health assistant education program will be phased out. Those who have started will naturally be given the possibility of finishing, and the last health assistants will be graduated in July 1995. Some of the students have also been offered the possibility of changing to the nursing program," manager Lissy Skonberg says.

"Twelve million kroner will be spent on refurbishing the health assistant school which will serve as a Center for Health education and will also be used for training courses for health personnel. Planning will take place here while some courses can be given regionally at other locations."

Ruth Lange, who was hired 1 May, will become the head of the Center. The nursing school will get its own inspector. The associates who are employed at the School for Health Assistants will be transferred to the Center for Health Education. Beyond the regular faculty, adjunct faculty will be brought in from, among other places, Queen Ingrid's Hospital. That is why it has been practical to place the school at Nuuk, according to Lissy Skonberg.

Authorities Differ on Controlling Salmonella

Fewer Cases Reported

93EN0490A Copenhagen BERLINGSKE TIDENDE
in Danish 9 Jul 93 p 5

[Unattributed article: "Fewer Sick From Salmonella"]

[Text] For three weeks in a row, the National Serum Institute has registered half as many people with salmonella infections as in week 19, when the number of infections peaked. Dr. Knud Gaarslev of the National Serum Institute does not believe, however, that the number will fall again to the level it was before the salmonella outbreak suddenly skyrocketed at the end of April.

Benefits of Irradiating Meat Debated

93EN0490B Copenhagen BERLINGSKE AFTEN
in Danish 9-15 Jul 93 p 8

[Article by Birthe Lauritsen: "Irradiation Kills Salmonella"—first paragraph is BERLINGSKE TIDENDE introduction]

[Text] "The slaughterhouses could irradiate meat in order to remove bacteria," said a professor at the Agricultural High School. "No," said a professor at the Rigshospital. "That would abolish the last vestiges of our hygiene control."

Salmonella in chicken and smaller portions of meat can be combatted effectively by means of irradiation.

Denmark's leading veterinary expert on salmonella, Prof. Niels Skovgaard of the Agricultural High School, said: "As long as agriculture is not able to solve the problem under production, irradiation is an excellent alternative. With irradiation, the consumer is not out of pocket, and the method is in many ways superior to other methods of preservation."

"I have just participated in an EC task force, in which we were asked to find, among other things, a method that would detect whether chickens had been irradiated. We found that irradiated poultry contained very few bacteria in contrast to meat that had not been irradiated."

Skovgaard said that irradiating chickens will cost the consumer only about 50 ore extra per chicken.

"There is much to be gained from irradiating. It is an effective way of combatting bacteria that cause illness in humans."

Many countries allow irradiation of foodstuffs. The World Health Organization (WHO) has come out and endorsed the method. But in Denmark the opposition to using radiation on foodstuffs has been great. Today, a very few firms have permission to irradiate spicess.

In Skovgaard's opinion, the opposition against irradiation is due entirely to being uninformed.

"In this respect, the public is at the same stage as our ancestors in the middle ages when they believed in witches and burned them at the stake."

Skovgaard said that irradiation was not dangerous; that in the doses required, it did not affect taste; that the method did not reduce the vitamin content more than other methods of preservation; and that the method did not conceal poisonous substances more than other methods, for example, heat treatment.

Senior researcher Arne Miller, of the division for chemical reactivity at the research station at Riso, confirmed that both gamma radiation and electron radiation were wholly without risk up to a specified range. And, it is the method that the World Health Organization recommends.

"But there is an emotional barrier," Miller said. He added that irradiation destroyed certain vitamins that must be compensated for some another way. He would prefer that feed rather than the end raw products should be irradiated.

Skovgaard: "It is not sufficient to remove salmonella from feed. It comes from other sources as well. In any event, it is not necessary to irradiate feed. There are other ways of ridding it of salmonella."

Whitewash

Professor Peter Skinhøj of the Rigshospital said that he was worried that irradiation of meat products would only whitewash bad hygienic practices.

"It would be removing the last of our hygiene control," he said. "Rather, we should demand product certification so that we know someone is concerned with the environment the animals come from."

"Consumers should insist upon a certificate of inspection which would guarantee the meat comes from salmonella-free livestock. And this requirement should apply regardless of whether the meat is of Danish or foreign origin."

Skovgaard said that the dangers of whitewashing with traditional preservation methods were much greater than with irradiation. One could assume that the control over irradiated foodstuffs would be very strict."

"Whitewashing occurs every single day in the food industry. But consumers should not believe from this that they are getting tainted food. It happens within a grey area."

"At the same time, it should be remembered that the dairies have done much to remove bacteria from milk, even though it is heat treated. Ten years ago, the bacteria count in chopped beef was sky-high. Today it has been brought down dramatically."

Foreign Meat Also

The debate about salmonella contamination has been blown all out of proportion. Especially in the case of pork. But Danish pork is not the only sinner. Salmonella poisoning can also originate in eggs and chickens.

And finally, foreign meat sold in Denmark can also be infected with salmonella.

"Very seldom can a source of infection be identified with certainty. It happens only in the case of an epidemic or when a number of people from a particular gathering are affected," said Dr. Steen Norby Rasmussen of Aalborg Hospital.

He estimated that half of all the salmonella patients in his area were infected while abroad.

Food Control in Esbjerg suspected poultry as the source in a couple of the latest cases.

And a number of control agencies acknowledge that it is difficult to have effective control over foreign meat because EC regulations forbid extra control—even where certain other EC countries have far more instances of salmonella than does Denmark.

Denmark imports about 80 million kilos of meat and meat products each year.

This corresponds to about 15 percent of our total meat consumption. Almost half of the beef we consume is imported.

And it is precisely in beef that "the most virulent salmonella bacteria are found," said Skovgaard.

"It is these that kill people," he said.

That salmonella is also found in foreign meat is substantiated by the results obtained in Randers.

In Randers, food inspectors found salmonella in one out of three foreign samples tested during the most recent campaign, Anders Mortensen of the Food Control explained. In 172 similar Danish samples tested, salmonella was found in two. But the numbers were so small, Mortensen did not find occasion for alarm.

He said that the Food Control used the minimum number set by an official group under the Nordic Council in 1992. According to the officials, it is acceptable to have salmonella in up to 5 percent of the samples without it being critical.

Department head Henrik G. Jensen of the Food Control Board, on the other hand, was looking for clear guidelines for what the 5 percent should represent. Is it 100 samples? A 1,000 samples?

Skovgaard maintained that the percentage should be way down below 1 percent before consumers would be satisfied. He supported his arguments with the fact that the officials' report has not won political approval. This is indicated by the quite different and much tougher Swedish standards for meat quality.

FINLAND

Widespread Smuggling of Diseased Dogs From East

93WE0472B Helsinki HELSINGIN SANOMAT
in Finnish 24 Jun 93 p 10

[Article by Merja Maenpaa: "Public Warned of Infected Dogs"]

[Text] Diseased dogs in poor condition are brought into Finland from East Europe. These "purebred" dogs are sold with or without false papers, on the street or through newspaper ads. Animal protection organizations, such as the Animalia Animal Protection Association, the Finnish Society for the Prevention of Cruelty to Animals, the Helsinki Society for the Prevention of Cruelty to Animals, and Green Cross have initiated an information campaign, "A Killing Disease as a Welcome Gift," the purpose of which is to prevent the influx of undocumented or smuggled dogs into Finland.

East European countries suffer a shortage of medicines and vaccines, which causes many dogs to arrive in Finland with falsified vaccination certificates. Pity or the low price for a "purebred" dog, is often sufficient incentive for a gullible buyer when he blunders into purchasing an undocumented and often also diseased dog.

Selling dogs on the street is a cruel business. The sellers attempt to keep the cost of caring for the dogs as low as possible. As a consequence, the dogs have often been weaned to early. They are undernourished and in poor condition.

Although the dog may look healthy and in good shape at the time of purchase, a latent disease may emerge soon afterwards. Sometimes the illness does not manifest itself for weeks, and, thus, the dog ends up spreading the disease to other dogs. The primary disease threats connected to imported dogs are distemper, rabies, infectious liver disease, diarrhea, and various internal and external parasites.

Veterinarian Jukka Marttila from the Helsinki Veterinary Center tells about some problematic cases of dogs from the east. The dogs have been underweight and sickly with poorly developed bone structure. They are the product of inferior breeding techniques.

"The dogs have been bought by gullible people; anybody seriously interested in dogs would not buy this kind. The dogs come without papers, and they are usually sold in parking lots," Marttila told us.

Dangerous Illnesses Not Yet Found

According to Marttila, dangerous diseases are yet to be found in these dogs. So far, only parasites and complications of distemper have been detected. A dog who has

recovered from distemper may suffer from neurological symptoms, such as muscle tremor.

Other veterinary clinics have also encountered dogs from the east. Undocumented dogs in poor condition show up in the waiting rooms of many clinics. "People are not aware of the seriousness of the problem," said Marttila. "Dogs are sold without medical examinations and without any papers. It is dangerous to buy such a dog, because the dog may suffer from rabies, and we all know the consequences of that," Marttila warned.

The purpose of the information campaign initiated by the national animal protection organizations is to prevent the sale of dogs from the east. "People are expected to show a sense of responsibility. If they refused to buy these dogs, business would come to an end in two weeks," said Risto Rydman from the Finnish Society for the Protection of Cruelty to Animals.

The organizations are attempting to appeal to the authorities and convince them to prohibit the import of dogs from the east, and, at the same time, intensify the Customs Service's efforts to prevent these dogs from being brought across the border. They also want to put an end to the sale of dogs from the east on the street.

"Don't buy a dog from the east, not even out of pity," warned Paivi Viinikainen-Rosqvist from the Animalia Animal Protection Association. Dogs should not be bought in public places, nor based on shady newspaper ads. The animal protection organizations appeal to the public and ask people to turn in the dog sellers from the east, as well as individuals attempting to smuggle dogs into the country.

GERMANY

Bonn Stops Relief Goods for Southern Bosnia

AU2106134593 Hamburg DER SPIEGEL in German
21 Jun 93 p 17

[Unattributed report: "Bonn Stops Relief Goods"]

[Text] The headquarters of the Technical Assistance Organization (THW) and the Interior Ministry in Bonn are blocking the supply of relief goods to southern Bosnia for an absurd reason. To stay the danger of an epidemic in the city of Mostar, THW relief workers are waiting for six water purification units from old stocks of the former GDR National People's Army. However, Bonn refuses to release them because they are painted in the traditional military olive green. The THW management suspects that the Croatian Government, which is in control of the transport routes in southern Bosnia, might mistake the equipment as support for its opponent in the Bosnian war. Instead of simply repainting the equipment—out of consideration for friendly Croatia—Bonn will now drop the entire project: After all, the THW argues, even averting the danger of an epidemic might be interpreted as a unilateral intervention in the hostilities. The safety of the experts on location is not to be endangered.

Government To Start Radiation Tests on Urals Residents

*LD1907132393 Berlin DDP in German
1200 GMT 19 Jul 93*

[Text] Bonn (DPA)—The examination of about 1,000 people for radioactive contamination in the southern Urals has begun with German assistance. The German Environment Ministry stated today in Bonn that people living in the immediate vicinity of the river Techa would be involved. The population there was particularly exposed to radioactive contamination as a result of the release of radioactive materials into the Techa from the nuclear experimental facility Chelyabinsk-65, as well as an explosion in a tank containing radioactive waste in the 1950's.

Federal Environment Minister Klaus Toepfer said that the examination of the population, which has now started, was "another humanitarian act for the people of the southern Urals who were affected by the consequences of the reckless handling of radioactivity." People would receive from the readings, "after many years of silence and fear," information about the extent of the health effects of radioactive contamination.

The measurements, which the Federal Office for Radiation Protection has been charged with carrying out, are likely to take four to five months.

UNITED KINGDOM**Doctors Fear Cancer Linked to Radio Mast**

*93WE0431A London THE SUNDAY TELEGRAPH
in English 9 May 93 p 8*

[Article by Robert Porter and Greg Neale]

[Text] Doctors are examining claims that Britain's most powerful television and radio transmitter could be linked to an alleged cluster of cancer cases.

Dr. Mark Payne, a specialist in environmental medicine, believes the apparent cluster of 16 cancer cases may be caused by electromagnetic radiation from the mast at Sutton Coldfield, near Birmingham. But he also fears that an official investigation into the case may ignore his evidence.

Dr. Payne discovered the cases when he stood in as a locum for a local GP, Dr. Henry Slominski. "I was struck by the number of leukaemia and lymphoma cases within a mile radius of the mast, most of them non-smokers who had lived there 15 years or more," he said.

The two doctors believe the figures point to more than coincidence. Like Dr. Payne, Dr. Slominski insists he is not blaming the transmitter, but simply looking for a solution.

"Whether what we have constitutes evidence is debatable," he admitted. "But we do have this cluster and no other explanation."

"In my previous practice, with over 6,000 patients, the incidence of these kinds of cancer would be one or two. Here, with only 2,500 patients, we are talking of 16 cases. It must be down to something."

Dr. Slominski's first case of this kind, which occurred five years ago, was Keith Wilson, a college lecturer who lives with his wife, Rita, and two children in a 300 year-old cottage at Shenstone Wood End, near to the mast.

Now aged 50, Mr Wilson has fought a long and successful battle against Hodgkin's Disease, a cancer of the bone marrow. He believes there should be the most rigorous tests of the electromagnetic radiation leaving the mast.

The BBC denies there is any risk. Mick Gleave, assistant head of engineering information, said: "We operate well within the guidelines set by the National Radiological Protection Board. In any case it is yet to be demonstrated that there is a cluster of cancer cases nearby."

But Dr. Payne argues that the NRPB guidelines are set far too high for safety.

A study of the case is also being carried out by Dr. Helen Dolk, of the London School of Hygiene and Tropical Medicine on behalf of the Small Area Health Statistics Unit.

Dr. Dolk, who hopes to report her findings before the end of the year, said last week that there was no need to collaborate with Dr. Payne on the study.

"We are an independent unit," she declared. "He can do his study if he likes. We are using the normal methods for this type of study and have been doing it for a few months."

Dr. Payne said yesterday he was "dismayed" by Dr. Dolk's response, and said she had no access to the patients identified as suffering from cancer.

"It is as though someone somewhere has already decided what the findings will be. It confirms my fears that there could be a whitewash."

"I am not saying the transmitter is responsible. I am simply saying that there is a mast and that around it there is an abnormally high incidence of cancers and serious blood disorders."

Fears that exposure to some electromagnetic fields generated by power lines may cause ill-health have persisted for years, but the evidence has been inconclusive.

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